

# CHICAGO PROJECTING CO'S. ENTERTAINERS SUPPLIES

MAIN OFFICE 225 DEARBORN ST. CHICAGO. U.S.A.

E. D. OTIS, MANAGER.

"SPECIAL CATALOG No. 15"

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This is Our  
**“SPECIAL” CATALOG**  
OF

**Motion Picture Machines**

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Stereopticons, Talking Machines,  
Accessories and Supplies for • •

**Motion Picture Theatres**

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We Have also a  
**“GENERAL” CATALOG**  
WHICH INCLUDES  
**Outfits and Supplies for  
Traveling Exhibitors**

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When Writing for Catalog State which is Desired



## The Object of this Book

This book is issued with a double purpose. Its

**First,** and its chief purpose, is to place before wide-awake, intelligent men and women, seeking a business investment, the plain truth about a business which requires but little capital, no experience, which is permanent, honorable and worth the time and attention of any man, which knows no failure when conducted with just average business intelligence, and which above all else returns a higher percentage of profit upon any investment up to \$25,000.00 than any other business on earth.

The facts herein contained are intended for the young man who is just finishing school, seeking a means of quickly capitalizing his training. They are intended for you, young man, whose duties and responsibilities to parents or your home compel you to cut short your educational training and become a money maker in the shortest space of time. It is for you men, young or middle-aged or old, who are toiling in offices and behind counters, who work on farms or in shops; for the school teacher who wants more independence and more money than his present position can ever offer him.

It's for all of you, bright, active, enterprising men who want to make your mark in the world who want money and the power and pleasure that money brings, who want to take your position among successful men of the world, where you will have standing and be looked up to.

The facts in this little book spell opportunity to you and they are facts, too, which you can depend upon. There is no coloring of the truth, no exaggeration, no over-drawing of what the motion picture business offers you, I will state the facts as I personally know them, and you can draw your own conclusions.

Should you decide to go into this most profitable business, I shall want you to do so with a feeling of absolute confidence and security. The best evidence I can possibly offer you that the motion picture business does pay big, lies in the success of my own concern. Our company with its great factory and office and its large force of employees could not exist if the business was not as profitable as I say it is. We can not hope to succeed if our patrons do not make money. Our success depends upon the success of those who buy from us, who stay in the business, and influence, by their own success, others to go into it. The

**Second** purpose of this book is to serve as an abridged catalogue of the latest devices and improvements to the trade, and the professional and semi-professional exhibitor. There is no need to talk to the man already in the business of the money it earns.

### They Know from Experience

They know, too, that in the machines and supplies offered by the Chicago Projecting Company they will find the best and most dependable, and consequently the most profitable.

Yours very truly,

E. D. OTIS,  
MGR.

CHICAGO PROJECTING CO.

## How to Get Rich With a Motion Picture Machine

Opportunities to make big money do not often come in this world, neither do they stay long when they do come.

The man who achieves success is the man who grasps opportunities as they come and who holds on to them.

There is nothing particularly new or novel about these self-evident truths, but I repeat them here just because they point to the opportunity and condition which exists to-day in the moving picture business, and which shrewd men are seeing and grasping to their own gain.

The moving picture to-day offers the greatest opportunity in existence for men to make money.

It offers the only opportunity for those of little capital to establish themselves in an honorable, permanent business, where failures are practically unknown, and which pays big right from the very start.

But because this business pays us well, it is an opportunity, too, which will not always be open to you, and you should lose no time in getting into it.

In considering whether any business is worthy of the time and attention of earnest men there are several points to be settled. First, "Is it going to last?" for no matter how much or how little capital you have to invest or how great the profits offered, it is not worth while if it is going to "play out" within a year or two or three.

The moving picture business is here to stay. Moving pictures is the greatest development in the amusement world for the past 100 years,

No other industry which has ever existed has had such marvelous growth as the moving picture business. Twelve years ago it did not exist. To-day it stands at the head of the list of popular amusements as substantial and important as the theatre, the opera or the concert. It is past the experimental stage and has become as permanent an institution as any other amusement enterprise.

Now there is a reason for this popularity of moving pictures.

Their success is not due to mere fad or fancy or the novelty of something new, but to the fact that the moving picture entertainment in any of its branches fills an ever present and increasing public demand, a crying need, which has never been filled before and which appeals to and satisfies every person who has eyes—every one, rich or poor, educated or otherwise, the classes or the masses. It supplies entertainment and instructions to those who have hitherto been denied it at a price they can afford to pay; and amusement to the wealthiest which they can not obtain elsewhere. Everybody likes to look at moving pictures. Everybody patronizes the moving picture entertainment. The more they see of them the more they want to see. People never grow tired of looking at the pictures. New subjects are so easily obtained that the demand for novelty is supplied as in no other kind of entertainment. And so lifelike is it that it seems that the very act depicted is taking place before the eyes of the onlooker.

### Everybody Must Be Amused

The desire for amusement is as much a part of the make-up of every one as the desire to breathe. Entertainment is as necessary to all of us as food, and because the moving picture "fills the bill" and supplies a real live want that has always existed and always will exist better than anything else, it has come to stay.

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## I Know What I Am Talking About

I have been with the moving picture business ever since it started. I was in the business of making stereopticons for twenty years before moving pictures were ever heard of. I know the picture business from A to Z by first hand knowledge.

I merely mention this that you may know that you may place full dependence and confidence in every statement made to you in this little book. I know the possibilities of the business better, I believe, than any other man in the country, and because I know the business so well I know that it offers you or any other live man a bigger income—steady—than any other field open to you to-day.

## The Business Is Easy to Learn

It is so easy, in fact, that no learning is really necessary at all. Any one with average intelligence and the experience of an adult in business affairs can successfully engage in it. No experience is necessary. Let me repeat that. You do not have to know one solitary thing about the moving picture business to succeed in it at once. The most successful men in the business are men who knew nothing at all about it when they started. Their own natural intelligence—just the same sort of intelligence that you and everyone else has—is all that is necessary. And the profit is as quick and sure as it is easy. It is nothing unusual to have inexperienced operators—men just starting in the business—make the total amount of their investment in the first two weeks. After that it is "all velvet," as the saying goes.

No other business on earth can equal this record. Ordinary business investments do well to pay for themselves in two to five years, but in the moving picture business there is no such waiting. Your income starts at once and the return is sure. No one can make a mistake in going into it.

## There Is No Competition to Fear

Most businesses, particularly those which are very profitable, are overcrowded. So many people go into them that nobody except a very few can hope to make any money. In spite of the fact that the moving picture business offers bigger profits and bigger opportunities than any other there is no fear of competition in it. The field is not covered by one-tenth and the demand is not one-tenth nor one-hundredth part supplied, and it never will be. The demand grows faster than the supply. Why, no matter how many people go into the business you need never fear of being crowded out. I will explain to you when I discuss the various branches of the business in the pages which follow.

The moving picture business is divided into three branches. In the pages which follow I will give you briefly the chief points concerning each of the three branches into which the moving picture business is usually divided. I can only give you an outline here of the various branches of the business. I have not the space to enter into every detail concerning it. I will, however, gladly supply complete information upon any one of the branches in which you may be interested, or answer any questions which you may wish to ask me at any time in personal letters.

These three branches are the Traveling Exhibition, the Nickelodeon or Nickel Theatre as it is sometimes called, and Street Advertising. Taking them in their order, let us see what each of these three branches have to offer you as a money maker.

## Traveling Exhibition

Usually the Traveling Exhibition consists of a combination of moving pictures and stereopticon views. The exhibition is shown from

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one to seven nights in a place in theatres, lodge halls, churches, school houses, vacant stores or in black motion picture tents, which are constructed especially for the purpose. Because the term traveling is used in connection with this branch of business it should not be inferred that it requires constant life upon the road. Some exhibitors who have been able to save several thousand dollars each year besides making a most substantial income have shown mostly within a radius of 50 or 75 miles of their own home, seldom going more than 100 miles. They go over and over almost the same circuit from year to year with increased patronage and reputation and return from each year's entertainment. Some exhibitors who operate in the large cities rarely leave the confines of their own county, having plenty to do within the limit of their home towns. This can only be expected, however, in the very largest cities, such as New York, Chicago, St. Louis, etc.

Others prefer to travel over considerable distance, stopping in each successive town, while others visit only the larger cities and towns. Others there are, and they constitute a large class, combine the exhibition business with traveling either for health or for pleasure and a desire to see the world. Among the best known successes in this branch of work is that of John L. Stoddard, whose name is a household word throughout the country. Dr. Stoddard gained a world-wide reputation at a time when motion pictures were not known. His entertainment consisted of a series of well chosen stereopticon views of which he gave a memorized description. He visited only the larger cities. In Chicago his visits to the Central Music Hall, which stood on the present site of the new Marshall Field retail building, was an event to be looked forward to for months. The little theatre seated 2,500 people and he was usually favored with a crowded house for each of his entire series of lectures.

Dr. Stoddard continued his work until 1895, after which he retired with a fortune of nearly \$100,000.

Another notable example of the traveling exhibitor is Mr. Burton F. Holmes. About 1892 Mr. Holmes, having accumulated a large number of views of different parts of the world while traveling to regain his health, decided to take up stereopticon exhibition work and began by exhibiting over practically the same route as that traveled by Dr. Stoddard. About twelve years ago, when motion pictures were first introduced, Mr. Holmes was shrewd enough to add this valuable feature to his stereopticon exhibition. Mr. Holmes enjoys the distinction of having shown his entire series of five sets of views covering five successful weeks at the Auditorium Theatre building in Chicago to more than 3,500 people every evening. Nearly every entertainment was repeated from two to three times. The appreciation shown by the public to the merits of Mr. Holmes' series of entertainments has been amply endorsed by the many flattering press comments from all the big newspapers in the country. Mr. Holmes' "Travelogues," as he calls them, have also become very popular during the past several years in England.

Mr. Elmendorf has for several years been very popular in exhibition work in and about New York, but it is only a year or two ago since he made his first appearance in Chicago, and he has been favored with full houses for his entire series of five entertainments.

Some of the most successful exhibitors confine their work to showing in churches and lodge halls, and for which they are usually able to make arrangements on a percentage basis, commissions and percentage of the receipts ranging from 25 per cent. to 40 per cent. for the use of the church or hall.

Fraternal societies and churches, especially the latter, are usually glad to arrange for an entertainment of this kind, as it not only furnishes an intelligible, high-class form of amusement, but a very important feature in what is often more necessary—the replenishing of the usually depleted treasury. Very often even in very small towns it is possible to give from two to six exhibitions in the same town or city, depending, of course, upon the population. In fact, as I have already

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said, some exhibitors have worked for many months within the same territory and have shown continuously in some of the larger cities.

Some exhibitors prefer to carry with them a black canvas tent which is made especially for motion picture exhibitions. It is constructed of black canvas and lined throughout, so as to shut out all outside light. By so doing they have little or no ground rent to pay, hence nearly all is profit.

When it is considered that there are more than 100,000 towns of over 500 inhabitants and more than 200,000 churches in the United States it is easier to grasp some idea of the endless possibilities and the vast field there is to cover with stereopticon and moving picture entertainments.

New York City alone has 534 churches, Philadelphia 684, St. Louis 263, Pittsburgh 187, Buffalo 154, Minneapolis 126, Nashville 115, Indianapolis 96, Atlanta 81, New Haven 65 and Topeka 50. These are only a few cities chosen at random, and yet every church in the country offers a fertile field for the traveling exhibitor.

In addition to opera houses, churches and halls in the larger cities and towns, is the farming and mining district, etc., of the towns and cities where the people have very little of up-to-date and high class entertainments, and are always easy to interest, and patronize liberally anything of the kind. They also invite and are ready to assist in anything that promises to contribute to their church or social organizations in a financial way. It is easy to reach a church or social organization either by letters—you can get their names from directories—or by personal solicitation, or still better, by advertising. Of this I will, however, speak later.

## The Profits of the Traveling Exhibitor

In order to estimate the possibilities of this wonderful business in the very smallest place, we will take for example a country school house, church or hall which will hold about 150 people. The receipts for admission, if we were to charge only 15 cents per person, would amount to \$2.50 and as the expense would be very light, a conservative estimate, after allowing for the use of the hall, assistant, board, and, in fact, all expenses would be about \$15.00 a night, and at such an average would amount to \$90.00 per week or more than \$4,300.00 per year, **and this, remember, is the net profit.**

The receipts from larger churches, halls and theatres in small towns of from 500 to several thousand inhabitants, which would come within the route of the traveling exhibitor, would be very much greater. In such places a series of two, three or more exhibitions may be given in the same town, thus reducing traveling expense, and as this class of churches and halls usually have a capacity of from 500 to 1,000 or more people, the receipts may be from \$.00 to \$100.00 or more per night. Now remember that in giving you these estimates I am basing my statements upon the actual experience of hundreds of men whom I have started in the business. They have no reason on earth to tell me anything but the exact truth, and I am giving you the figures just as they have written to me time and time again telling of what they had done. Basing our estimate and possibilities of the traveling exhibition from these actual facts, it is not very much work to figure that anyone who has even a little ambition and average intelligence and energy and who will follow my instructions, should be able to make absolutely clear and above every expense, from \$1,500.00 to \$5,000.00 per year. Hundreds of men are doing far better than this, and it does not make any difference how much competition you may have. The field is so large and the varieties of subjects which you can show so great, that even if there were a half dozen other exhibitors working in the same county it would not affect your receipts in the slightest degree. Churches and societies sometimes have from two to four such exhibitions in the course of a single week, and they all pay big. People never get tired of looking at stereopticon and moving pictures.

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### How Much Capital is Required

The amount of investment required to set one's self up as a traveling exhibitor, of course, depends very largely upon the size of the outfit. It is the least expensive of all branches of the business to get started in. An investment of from \$150.00 to \$250.00, according to the size of the outfit, is all that is required. This covers everything. In what other business can you possibly engage which would pay you even a fraction as well for the amount invested?

The outfit of the traveling exhibitor should consist of a combination of stereopticon and motion picture views, together with a suitable apparatus for illumination. A good selection of both stereopticon and motion pictures is imperative, and should cover some subject in which the public generally will be interested. The outfit should also include advertising posters, admission tickets and a small printing outfit for filling in dates, names of subjects, etc. The instruction book and business guide, which you find described in the following pages of this book, is also a very important item and is included with every one of our complete outfits. With this book and our outfits your success is certain. Owing to their novelty and attractiveness some prospective exhibitors get the impression that the exhibition should consist of nothing but motion pictures. This, however, is a mistake, except in the case of the 5-cent theatres, of which I will speak later. This, of course, does not come under the head of traveling exhibitor's work at all. The traveling exhibitors who have been most successful in giving exhibitions in churches, lodge halls, etc., give a full evening's entertainment, covering a period of about an hour and a half, the principal part of which consists of stereopticon views which are interspersed throughout with a good selection of motion pictures. The only way to show views where the beauty of the scenery is an important feature is with the stereopticon, while on the other hand, where there is action in the scene, the use of the motion picture is imperative. Stereopticon views are restful to the eyes, while motion pictures are somewhat tiring, hence an exhibition covering a period of an hour and a half consisting only of motion pictures would become very tiresome. A mixed entertainment, on the other hand, is thoroughly enjoyed all the way through. This fact is amply evidenced by the practice of all the acknowledged exhibitors.

My traveling exhibitors use illustrated songs in combination with the stereopticon views and pictures. The songs may be sung by some one connected with the exhibition, or by local talent, or a talking machine. The second branch of the business is

### The Five-Cent Theatre

This is a branch of the picture business which alone would require a book of this size to tell one-half of the wonderful story. This is by long odds the most important branch of the business.

The small amount of help required is one of the strongest features in favor of the motion picture theatre. A ticket seller and door-keeper to take the tickets and an operator to operate the machine, and perhaps a porter to care for the interior of the theatre, clean up, etc., is practically all the help required. These three people are all that are needed for the smaller place, in fact, it is possible to get along with two in a very small place, merely the ticket seller and the operator of the machine.

I stated at the beginning of this book that the motion picture was the most important development the amusement world has known for the century.

There has been no greater factor in its development than the Five-Cent Theatre.

It has set the theatrical world "on its head."

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The great expense of conducting even the cheapest theatrical troupe with its ten and twenty-five actors, expensive scenery, traveling expenses, etc., etc., etc., has placed the ordinary dramatic entertainment beyond the reach of the masses, while educated people quickly weary of the stilted action and self-evident artificiality of even the best theatrical productions.

The motion picture theatre with its marvelous representation of real life is within the reach of everyone and appeals to all.

No better evidence of the hold it has upon the people could be offered than the fact that there were at one time this last winter over 2,000 idle actors in Chicago alone.

### **The people go to the Five-Cent Theatres.**

For the benefit of those who may not be familiar with the nickel theatre, or have never had the opportunity to visit one it is perhaps well to give as briefly as possible a description of what a Five-Cent Theatre is and how it is arranged.

A Five-Cent Theatre is simply a store room or special building in some cases located upon some main traveled street or where people congregate, with an attractive entrance, properly decorated, provided with a stage or platform before which the curtain is hung, proper seating arrangements, a ticket office at the entrance, and a booth for the location of the picture machine.

**THE PROFITS** of the Five-Cent Theatre are so great as to be almost unbelievable to those who are not familiar with the facts. No other investment on earth pays so well as the successful Five-Cent Theatre, and they are all successful.

The man or woman who would hesitate long, or who can not afford to pay fifty or seventy-five cents or a dollar or even twenty-five cents for a ticket to an ordinary dramatic or vaudeville performance, will gladly patronize the Five-Cent Theatre and the nickels quickly count into dollars.

**The average Five-Cent Theatre because it is operated at an expense which is so small as not to be worth the mentioning, should in any city and good location earn as much on an average as the theatre where seats sell for \$1.50 each.**

## **The Future**

of the Five-Cent Theatre is as assured as that of any other industry. It is here to stay, because it supplies a real need that will always exist. The patronage of the Five-Cent Theatre is as regular as at any of the highest priced theatres in the larger cities. People go to the Five-Cent Theatres as regular as they eat their meals. They are loyal to their favorite amusement, and to think for one moment that any Five-Cent Theatre which keeps up to the standard of its entertainment will "play out" is to speak without knowledge of actual conditions as they exist.

Five-Cent Theatres will always be popular. They are growing constantly in popular favor and will continue to do so.

## **It's Easy to Start**

a Five-Cent Theatre. All that is necessary is a good location, a show room which can be properly fitted up where the people gather or which is easily accessible.

The amount of the investment may be anywhere from \$200.00 to \$2,500.00, according to the size of the theatre and how elaborate it is. It would, of course, be foolish to start a \$2,500.00 enterprise in a small town or city as the patronage would not be sufficient to make it pay. However, no such investment is necessary in any city, either large or small, as a start may be made with as small an investment as \$200.00.

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When I say \$200.00 I mean that that covers the whole amount of the investment; the price of the necessary machines, remodeling, and decorating the interior of the theatre and the entrance, which must be made attractive, and cost of seating—every expense ready to open the place. No other business on earth paying as large a return can be started for so little money.

The time was when the better class of people were inclined to look askance at the Five-Cent Theatre enterprise, but this time has long since passed and to-day it is patronized by the best people in every locality, and endorsed by educators and those who have the good of the people at heart. The business is one which is well worth the time and attention of any substantial, dignified business man. It is not necessary that you should devote all your time and attention to the Five-Cent Theatre. I have sold outfits to many bankers, lawyers, professional men, as well as ladies who could not give all of their time or indeed very little of it to the management of the enterprise, and it is one of the most attractive features of the business that but little time is required. The number of employees, as I have stated above, is ample sufficient to conduct the enterprise, and like the penny arcade popular some years ago, it practically runs itself.

The success of a Five-Cent Theatre depends upon four things. First, its location, which must be where people congregate, in well lighted streets, etc. Second, the nature of the entertainment, which must be clean and wholesome as well as entertaining. Third, the good management which goes without saying. Fourth, the pictures shown. A successful Five-Cent Theatre depends, of course, on the class of pictures shown and on the machine. With a good machine and good pictures the success of the enterprise is secured. It is the quality of the picture that brings continuous patronage, and the more perfect they are the more they are appreciated, while poor pictures will quickly ruin the business. We have for rent some of the finest films on the market, photographically perfect as to scenery and make-up and so clearly printed that they show up every detail, which is a thing lacking in most rented films. We have in conjunction with the rental of films a large stock of beautiful song slides of the latest and most popular songs, as we have a standing order with the largest song slide house in the country for their latest numbers, so that we are in a position to give you the best and most up-to-date service. It has been the universal experience of operators of Five-Cent Theatres that the use of our films will increase the receipts from 10 to 50 per cent. Our rental prices are very low in comparison with the class of service rendered. In starting a Five-Cent Theatre it is essential to start it right. It costs no more to get a good machine, good pictures, etc., than it does poor ones, and it means a difference between success and failure. If you wish to be successful with the moving picture business in any or all its branches you have got to use the best. Hundreds of operators have proven that our outfits do make people successful. We supply everything needed for a Five-Cent Theatre—posters, advertising, films and machines. With our aid and our supplies you can not help but succeed.

## The Third Branch of the Business is Street Advertising.

The outfit required for this is somewhat similar to that required for the Five-Cent Theatre, but the machine, as a general rule, must be provided with a long-range lens, as the views are usually projected across the street. The street advertising outfit should consist of a stereopticon, arc lamp, rheostat, etc., a good quality long-range objective lens, screen, a selection of advertising lantern slides, a few miscellaneous scenic and comic lantern slides, and a few well chosen moving pictures. While these last are not imperative, will add very much to the value of the exhibition and will bring better returns for the adver-

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tisers. These men are always ready and glad to patronize the best means of getting their business before the public, and this method, we believe, as is evidenced by experience, is not surpassed by any, and good as it is, it has been worked comparatively little. Arrangements can be made in any city with from 20 to 30 merchants at a time to show their advertisements for from four to six times during an evening, either single slides or a series. Advertising slides should be interspersed with a selection from our regular comic list, scenic views, etc., to keep up the interest and an occasional motion picture view.

While advertisements of the first set of merchants are being shown arrangements can be made for another set, and so on. The name and address of the advertiser may be written or printed on the outside of the slide with a pen and India ink. By so doing the name and address may be erased and the slides used over again for some other merchant.

I shall be glad to take up the subject of the use of motion pictures in advertising with any one who cares to go into it and discuss the matter with you in detail. We have a very large list of designs and stereopticon lantern slides suitable for representing almost any kind of a business.

These three branches constitute the main features of the picture business. In discussing them it is difficult to entirely separate them, as many exhibitors make a practice of working one branch of the business at one season of the year and another branch at other seasons; for instance, many operate a Five-Cent Theatre and take advantage of the fact that County Fairs, State Fairs, City Amusement Parks, etc., constitute a wonderfully profitable field for an exhibition of motion pictures, and close down their motion picture theatre in the city or town during the hot months working an outfit at the Fairs, Parks, etc. It is not difficult to secure the privilege of showing at these places. The privileges are usually rented for a certain sum of money, but are sometimes operated on the percentage basis; either way they will usually prove very profitable for the operator. After the season for fairs and outdoor exhibitions are closed Five-Cent Theatres are again operated, and so on. In this way those who care to have a continuous business may do so the year round. Many operators, of course, would rather close and take a vacation during the summer, as they can well afford to do, while thousands have such suitable locations that they work six days in the week year in and year out.

### Illumination.

In considering the motion picture business there is no point more worthy of consideration than that of the problem of illumination. An illuminant suitable for one class of service is entirely unfitted for another. For instance, electric light is the best for the advertising exhibitor and motion picture theatre, but the illuminant best adapted for the use of the traveling exhibitor is by all means the calcium light. Electricity is a little stronger than calcium and may sometimes be used to advantage where connections may be had, but the calcium light is more mild, lacking the dazzling whiteness of electricity, gives a more natural appearance to the pictures and more to be depended upon under all conditions. I have made a special study of the problem of illumination and I can not too strongly recommend an Enterprise Portable Gas Outfit, which you will find described upon the following pages. I know this to be the most satisfactory means of supplying the gas. The Sun Rival Gasoline Vapor, Vapo Search Light and Acetylene are also extensively used by traveling exhibitors, but usually where only stereopticon views are shown. There are eight different forms of illumination commonly used. Some of these I have mentioned, but we will consider all of them in greater detail, taking them in the order of their intensity.

**Electric Arc**, as I have stated, is the most powerful and will develop about 1,500 candle power. As I have said, electric light by reason of its great strength is a little better for street illumination and may be used to advantage with motion pictures, but is not so good for stereopticon views as calcium light. While most theatres, halls, churches, etc.,

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where better exhibitions could be given are wired for electricity, there are some that are not and take it all in all I strongly recommend the calcium light.

**Calcium Light** is without any question more generally used by the most progressive exhibitors than any other form of illumination for optical projection work. While in motion picture work there is a slight advantage in favor of the electric arc light in that the illumination is stronger, exhibitors in stereopticon work prefer calcium light owing to its freedom from the dazzling whiteness of which I have spoken. When used at its maximum efficiency calcium light will produce illumination the intensity of which is within 50 per cent. of that given by electric light when used under average conditions.

**The Sun Rival Gasoline Vapo Light and the Vapo Search Light** may be considered in one class, being well adapted for stereopticon work, having been very largely used owing both to their portability and cheapness of operation. The cost of operating a Sun Rival is about one cent per hour and the Vapo Searchlight about eight cents per hour including the mantles. They produce about 275 candle power and will illuminate a stereopticon view up to ten or twelve feet in diameter. While I do not recommend the Sun Rival for motion picture work it is sometimes used for this purpose when showing small pictures of six or seven feet in diameter and when the exhibitor is not able in the start to provide himself with a stronger and consequently more expensive illuminant. These illuminants are especially well adapted to the requirements of churches, Sunday-schools, secret societies, etc. They are easy and simple to operate and there are no chemicals used that will soil the hands or clothing.

**Acetylene** is a well-known, convenient and economical illuminant. The outfit is light and portable and simple to operate. The cost of operating is about 15 cents per hour. It produces about 275 candle power, which is about the same as the Sun Rival and Vapo Searchlight. Incandescent electric light will produce from 50 to 100 candle power, depending upon the type of bulb used, and is especially suitable for the requirements of secret societies, churches, school houses and for home use.

**Weisbach Gas Light** produces nearly 100 candle power, which is a little less than incandescent electric and is suitable for the same purposes.

**Kerosene Oil Light** produces about 85 candle power. Many, many years ago when I first went into the stereopticon business it was used quite extensively as an illuminant, but since the invention of so many stronger and better forms of illumination it has been used but little. For traveling exhibitors it has another difficulty; the oil leaks out saturating everything with which it comes in contact. I do not recommend kerosene oil light for any purpose.

## I Supply the Films

I am often asked by traveling exhibitors where they could secure their films should they engage in the business. As I have pretty well explained above in the chapter devoted to the Five-Cent Theatre we have inaugurated the film rental service which does away with the necessity for buying films. It costs anywhere from \$300.00 to \$1,000.00 or more to get moving picture films, and as it is customary to change the subject in some theatres daily and in others weekly and even desirable for the traveling exhibitor to make occasional changes, it is, of course, not practicable for him to own his own picture films, consequently we supply them at a merely nominal rental. The subject to be selected is one of the greatest importance. It is necessary that the exhibitor illustrate something in which the people will be interested in sufficient to attend the entertainment after having seen the advertisement. We have deviated radically from the custom used many years ago by dealers in this line, and by many of them still continued,

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who have in their list thousands upon thousands of slides on various subjects and a great number of motion picture films nine-tenths of the films and slides generally listed are of little interest to the public, but we have confined our attention to only such subjects as will be of the greatest interest to the public and which we know to be of such a nature that they will bring success to the exhibitor. We have given a sufficient variety to choose from to meet any requirements, and after studying descriptions of each we would suggest that the traveling exhibitor select a subject which he thinks would harmonize best with his own ideas and by so doing he could put forth his best efforts. I would be pleased to give any further information or advice to any one contemplating going into this business upon the subject of films.

### My Aid to You is Free

I do not consider that my interest in those whom I start in this business ceases with the selling to them of an outfit. I expect to give you the benefit of my aid and advice at all times. I want you to call upon me and lay your difficulties, should you encounter any, before me. I have had many, many years of experience in the picture business, and without boasting, I feel that I can be of more aid to you in this particular way than any other man in the business. I am always glad to assist our customers in the matter of advertising. I have had a large and varied experience in writing advertisements on motion pictures. This service, as I have stated before, is yours for the asking. Our plan of making outfits complete with everything required to conduct the business offers a very good advantage to anyone who wishes to engage in it. It is not so very long ago that when a person wanted to go into the picture business he could secure of the dealer nothing but his instrument, lantern slides, films, and in many instances not even a descriptive reading, and was able to get nothing more than the most meagre instructions for the operating of the instrument. In these matters we have worked a revolution. With great care and at considerable expense we have prepared a complete instruction book and business guide of which I have spoken before. The book not only tells how to manage the instrument, but also how to start the business, how to make arrangements for the use of the halls or churches, what would be considered to be a fair share for the use of the place of exhibition, how to get up advertising posters, circulars, etc., etc., etc. This book is of great value and assistance to the inexperienced. One of the many advantages to be gained through the purchase of an outfit from the Chicago Projecting Company is that every outfit includes a quantity of large advertising posters, which to duplicate for individual use would doubtless in some instances cost twice the price of the complete exhibition outfit. By purchasing these posters in quantities we are able to furnish not only posters to last a sufficient length of time, but also a quantity of admission tickets. Our special outfits for traveling exhibitors are offered at a little less than the individual articles. First, because we can handle a big order proportionately cheaper than we could handle a small one, and consequently, because I want to get people started. I know that in future orders I will more than make up the amount we sacrificed and I consider it money well spent if we make no profit upon our outfit in order to get any good man started.

It was at one time customary to show catalogues of prices so high as to enable the giving of discounts, which apparently were very large and really were no reductions at all. We have long since abandoned this practice to which we were always opposed. It is simply a way of bluffing the people. To us one man's money is as good as another's. We want no enormous profits; our goods are listed at prices that will net us the smallest percentage of profit on which we can afford to do business, consequently the prices for our outfits stated in this book are net. A careful comparison of our catalogue and our prices and value for value considered with this or other houses will convince any fair

## CHICAGO PROJECTING Co.

minded man that our prices are right. We are offering you greater values than you can get elsewhere and you will get fair and just treatment if your orders are placed with our concern.

As a last word to those who are contemplating starting in this most profitable of all businesses I want to say, it is impossible to cover every point and detail of so important an industry within the limits of a book of this size. I know there are questions which you will want to ask; there will be points which you will perhaps not find as clear as you might wish. I do not want you to put the matter from you on this account, nor do I want you to abandon your intention of going into the business because there is something you do not understand. I want you to write to me fully and frankly. I want you to tell me how you are situated, how much capital you have to invest, where you think you would like to locate and, in fact, give me any suggestions, confidences and such information as you can about yourself and your ambitions. It is my desire to help you. The benefit of all my years of experience is yours just for the asking. I know if you will go into this business you will never regret it. It offers you profits which exist in no other business on earth. It is a sure money maker and I want you to go into it. I shall be glad to answer any questions you have to ask.

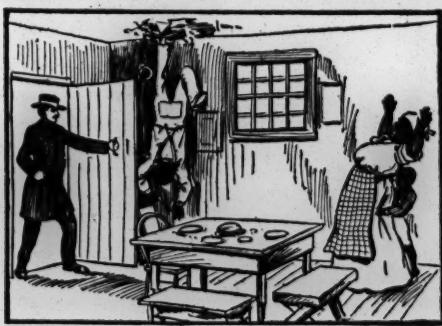
**E. D. Otis,  
CHICAGO PROJECTING COMPANY.**



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## The Motion Picture Machine.

One of the greatest and most wonderful of recent achievements is that of producing pictures in motion. By the use of motion pictures it is possible to make a complete photographic record of every motion of any object that is before the camera, and with the aid of the motion picture machine and powerful condensed light, these same motions may be reproduced as many times as desired, the pictures being shown in large size and as natural as life. By this means records of events may be viewed by thousands of people, thus giving them a correct idea of the entire performance as it originally occurred.



To illustrate more clearly, we will describe an incident as it would be shown in a theatre, church or hall. The house is darkened and, as the lens of the motion picture machine is uncovered, there seems to open before the audience a huge window. Through

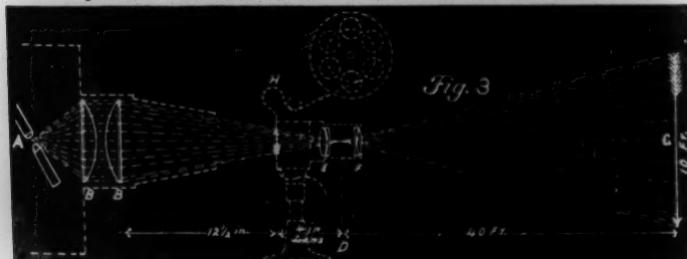
this window they see a rollicking comedy of the Sunny South, full of laughter from start to finish. A typical Southern darkey is devouring a section of fried chicken. The play opens with an interior view of a genuine chicken coop, in which over a hundred chickens are seen on their roosts at night. Two chicken thieves creep into the coop and gather in a bagful of the plumpest fowls. When the theft is discovered, the farmer and his son set an immense bear trap outside of the coop, preparatory to another visit by the thieves. Next scene shown is a chicken dinner in a typical darkey cabin, faithful in every detail to Southern mannerism. The chicken thieves go back after another load, and the bear trap gets in its work. The succeeding scenes are tinted to give the effect of moonlight. There is a wild pursuit through the woods and country roads by a posse of farmers, and one of the chicken thieves is brought down by a charge of bird shot. The other with the bear trap still on his leg, arrives at his cabin while a dance is in progress and is concealed in the attic. The farmers burst in and search the place, and are about to leave when there is a terrific crash, and the chicken thief comes down through the ceiling amidst a shower of lath and plaster head first, hanging by one leg fastened in the bear trap which is caught to the rafters.

The picture described above is entitled "The Chicken Thief," which will be found in our regular list of motion picture films.

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The optical principle of the motion picture machine is the same as that of the stereopticon, only that the pictures for the motion picture machine appear on a transparent film, and pass before the lenses in rapid succession.

The film is a long transparent celluloid tape  $1\frac{1}{2}$  inches wide. (See introduction to Motion Picture Films) the length varying with the duration of the scene that is being illustrated. On the film is a series of photographs about  $\frac{1}{2}\times 1$  inch, taken at the rate of from fifteen to twenty per second, and to produce the animated movements, the films are moved past the projecting lenses at the same rate of speed, with a fractional stop between each picture. On a film one hundred feet in length there is a series of about 1,500 separate and distinct photographs, each one slightly different from the other. From the beginning to the end of the film all the movements will be recorded that have been exhibited before the camera at the time the picture was taken. For each subject that is to be illustrated, a separate film is necessary.



For the production of motion pictures, the indispensable elements are, a source of illumination, "A" condensing lenses, "B B" for gathering and condensing the light rays, and passing them through the picture on the film "H" to the objective lenses "E F" of the motion picture machine, where it is magnified and projected on the screen "G" where the pictures are displayed. The machine must be provided with a mechanism for intermittently moving the film so that each successive picture in its turn appears before the objective lenses, and an automatic shutter to successively cut off the illumination while each picture is being moved to place. What is called "persistence of vision" is depended upon for the blending of one picture with each succeeding one. The motion picture machine must also have a means of framing the picture, by which is meant bringing the picture to a position that will accurately register its margin with the edge of the light opening in the machine.

It must also be provided with satisfactory reeling mechanism for unwinding and winding up the film as it passes through the machine. Objective lenses of the highest standard of quality are an indispensable element to high grade motion picture work. Owing to the small size of the picture on the film, which measures only about  $\frac{1}{2}\times 1$  inch, great magnifying power is required to produce a picture of the required size on the screen, and as the detail of the picture on the film is very small, nothing but a first-class lens will reproduce it accurately. All of this and many other requirements are necessary to the production of a satisfactory motion picture machine.

In the new Model Optigraph No. 4 Model 1907 we have endeavored to provide every possible requirement in the way of adjustments and conveniences that will contribute to the highest grade of motion picture work, and to the comfort and satisfaction of the operator. We invite your most careful investigation of the New Optigraph, as we believe it to be the best motion picture machine to be had, and are pleased to recommend it as the best to all those who are considering this line of work.

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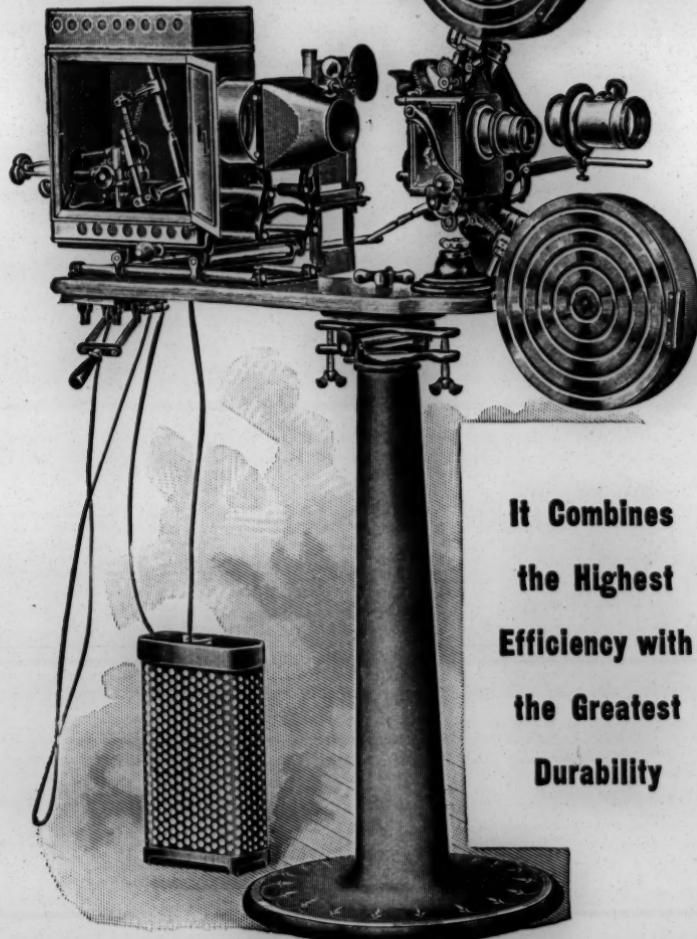
# THE MOTIOPHOTOGRAPH No. 1

MODEL 1908

THE LEADING  
MOTION PICTURE MACHINE

"Motiograph" Signifies a Record of Motion.

Six  
Patents  
Applied  
For



It Combines  
the Highest  
Efficiency with  
the Greatest  
Durability

CHICAGO PROJECTING CO.

# ~ The Motiograph No. 1 ~

Model 1908

## Motion Picture Machine

Is the Latest and the Best

It Projects Steady Pictures

Flickerless Pictures

Brilliant Pictures

It is a wonderful improvement over its predecessors. **IT LOOKS DIFFERENT, IT IS DIFFERENT AND THE PICTURES IT PROJECTS ARE DIFFERENT.**

**It is Simple, Rigid, Artistic and Durable,** and projects a picture that is Astonishingly Better than by other machines.

## The Value of a Motion Picture Show is all in the Pictures

It's the quality of the pictures that bring the continued patronage, and the more perfect they are, the more they are appreciated, while poor quality in the pictures will quickly ruin a business.

**The greatest success** in this business may be attained only by the use of the best machine that money will buy.

## That's the Motiograph

If you need a machine you can't afford to consider any other. **The Motiograph doesn't cost much more money** than other machines, but it's worth many times the value of any of them, and will be found a big money saver, as well as a big money earner.

The Motiograph has been designed especially for the heavy and exacting work of the **Motion Picture Theatre**, and is the only machine that has been designed, and is well adapted for this important class of work.

There's the best of reasons for our claims of superiority, and if you will carefully investigate, we believe you will think the same as we.

**WE GUARANTEE** that the Motiograph will do what we say it will.

Fifty cents a day for a year buys a Motiograph. If you already have a machine, discard it, get a good one, and

**See Your Business Grow**

225 DEARBORN ST., CHICAGO, ILL.

# 20 Points of Excellence in The Motiograph No. 1

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Model 1908

## Motion Picture Machine

### That Cannot be Found in Other Machines

- 1.—Nearly 50 per cent less non-exposure than with other machines, hence sharper and very much more brilliant pictures and **Flicker Eliminated**. A new type of shutter is responsible for these advantages. Patent applied for.
- 2.—**Steady Pictures**, as a result of perfect design and workmanship.
- 3.—**A Quick Film Rewind** that is an astonishing improvement. The film may be rewound from the main crank in two minutes, without removal of either the reels or the magazines, and without fatigue. A great boon to the operator. Patent applied for.
- 4.—**Safety Film Magazines** that are a radical improvement over other styles. The reels or magazines need not be removed when rewinding the film. Patent applied for.
- 5.—**Magazine Traps With Four Rollers** and with spring actuated flanged guides. Prevents side movement and impossible for fire to pass them. Patent applied for.
- 6.—**An Automatic Fire Proof Shutter** that never fails. The only one that can be depended upon. Patent applied for.
- 7.—**A Perfect Framing Device** of new style that does not disturb any other vital parts, and has the framing handle in the most convenient location. Patent applied for.
- 8.—**Flanged Idler Rollers** to prevent the film being torn or ruined from accidentally running off the sprocket wheels. Patent applied for.
- 9.—**Enclosed Gears and Working Parts** prevents exposure to dust, dirt and accidents. Saves care and wear and makes better pictures. Located on opposite side from operator, hence not in his way.
- 10.—**The Intermittent Geneva Parts** are completely enclosed. Saves wear, retains oil, reduces noise, makes better pictures.
- 11.—**A Perfect Take-up** with new form of belt adjuster. A great improvement over running films loosely into a box, bag or basket.
- 12.—Has **Indexed Turn-Table Base** which makes it convenient to turn the mechanism for inspection, oiling or adjustment, and instantly clamp it in its proper position.
- 13.—**Strength, Rigidity and Perfect Fitting Parts** prevents vibration of the picture. It is more rigid than any other mechanism.
- 14.—**Electric Motor Attachment** may be added at any time. The machine is especially adapted for it.
- 15.—“**Lid Off Wide Open**” **Lamp House** is a great convenience for renewal of carbons, etc.
- 16.—**Improved Arc Lamp with All Hand Wheel Adjustments**, for focusing means better pictures, because the operator can focus the light instantly and accurately.
- 17.—The **Slide Carrier Swing** saves for the motion pictures about one-third of the illumination, an amount that is lost without it.
- 18.—The Vertical Adjustment of Mechanism and Lamp House is permanently fixed, and they cannot get out of alignment.
- 19.—The **Gibraltar Swiveled Pedestal Stand** holds the machine rock steady and provides the most delicate adjustment for the picture on the screen.

## CHICAGO PROJECTING CO.

**20.—The Motiograph is Artistic in Design, Well Made and Beautifully Finished.** It will outwear any other machine, will be a source of pride to both the operator and the Management, and will Increase the Bank Account.

### Detailed Description

"Motiograph" has been selected as a name, because it signifies "A Motion Record."

The Shutter is probably the most important element in the production of a good motion picture machine. In this particular, we claim that

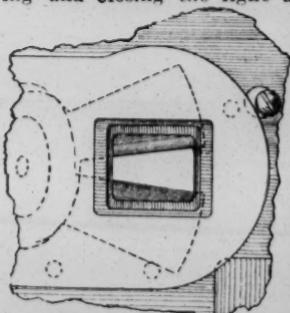
The Motiograph reigns supreme, and to substantiate our claim, we will make the following explanation, which will be readily understood by anyone conversant with the art of producing motion pictures. It is well known that the elimination of flicker in the picture depends upon the degree of non-exposure as compared with the period of exposure. Until the introduction of the Motiograph, the best that has been accomplished by machines generally known to the trade has been a duration of picture equal to about 50 to 55 per cent as compared with a duration of darkness equal to about 45 to 50 per cent. Greater exposure would be at the expense of brilliancy, on account of the movement of the film. In the Motiograph the period of non-exposure has been reduced to approximately 25 per cent, which means a reduction in the period of non-exposure amounting to nearly 50 per cent, and an increase of equal proportion in the period of exposure or duration of picture, which means far more in the results than the figures would seem to indicate. Other manufacturers have done the best they could with their form of construction, while in the Motiograph the results have been accomplished by using a form of construction adapted to the requirements.

The above figures apply to our form of shutter, which produces a single interruption besides the non-exposure for each picture.

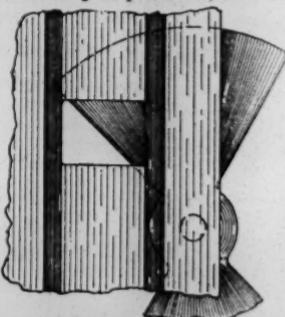
The customary form of shutter construction in general use is what is known as the disc type, which is usually mounted on the framing device and travels up and down with it. In opening and closing the light aperture,

which is about 11-16ths of an inch high by 15-16ths of an inch wide, the disc shutter crosses the aperture over its greatest length, which is diagonally across from corner to corner, a distance of about 1½ inches.

The Motiograph shutter is a new and original type, known as the "double truncated cone," by the use of which we are able to open and close the light aperture across its narrowest width, which is 11-16ths of an inch, and are further able to cut that travel in half on both the opening and closing movements, by the use of the double shutter which opens and closes from both sides at the same time, thus making the period of opening and closing cover a shutter travel of 11-32nds of an inch, a travel of about 36-32nds, (1½) inches



Motiograph Shutter.  
as against a diagonal shutter



Disc Type of Shutter.

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when using the disc type of shutter. The period of non-exposure when using the disc type of shutter is still further lengthened by the necessity of using a wider wing on account of the shutter being carried up and down by the framing device. The Motiograph shutter does not change position with relation to the light aperture while framing the picture. From the above explanation it should be plainly apparent to anyone who has any knowledge of the principles of motion pictures that our claim of nearly 50 per cent reduction in the period of non-exposure, and a corresponding percentage of gain in duration of picture is correct, and that the flicker is reduced proportionately.

Some manufacturers, in an effort to correct the functional disadvantages of their machines, reduce the shutter wings to a point where the film is in motion during most of the time that the light aperture is being covered and uncovered by the shutter, and while by so doing they increase the exposure, the movement of the film blurs the picture and destroys the sharpness. Other devices are also in use with the same object in view, but with similar results.

A still further improvement is accomplished in the Motiograph shutter by the use of a pair of Interrupting Wings, for the purpose of dividing the period of exposure, as a means of further reducing the flicker, but the interrupting wings are reduced in width in proportion to the reduction in width of the main wings, all of which is made possible by the short travel and their peculiar cone-shaped form of construction, which features are covered in one of our many patents.

**Shutter Protection** is an important feature in the Motiograph. The shutter in any machine must necessarily be light and delicate, but in the Motiograph the shutter is entirely out of harm's way, being entirely enclosed within the main frame. Many exhibitors have suffered great inconvenience and loss of both time and money by the breakage of shutters and will fully appreciate this feature.

**Steady Pictures** depend upon two conditions, viz: a perfect film and a perfect machine. Without a perfect film no machine will project a steady picture; while, on the other hand, with the most perfect film obtainable, steady pictures cannot be projected without a machine that is properly designed and absolutely accurate in its vital parts. For example, an error of 5-1000ths of an inch in either the film, the sprocket wheel or the Geneva Star, or in the adjustment of the Star to the Geneva Driver (pin wheel), when using a lens of six inch focus, produces an unsteadiness or dancing movement of the picture on the screen to the amount of approximately one inch, when the machine is located at a distance of one hundred feet from the screen, and a combination of two or more of the above errors may multiply the unsteadiness in proportion to the number of errors. A variation of a much smaller amount than the above is not only tiresome, but very annoying to an audience.

One who is posted and observing may be easily convinced that the Motiograph has been well designed, that it is carefully and accurately made, and that first-class material has been used throughout. In the construction of the Motiograph many thousands of dollars more than is customary have been expended for special tools, dies, jigs, etc., with a view to making the parts of the machine accurate and uniform. The above, together with great care in manufacturing, are the reasons why the pictures are more steady.

**The Geneva Movement** for the operation of the intermittent sprocket wheel is used in the Motiograph, because it is the only movement that will carry the film with sufficient speed and accuracy to give a sharp, clear and steady picture without injury to the film. It stands to reason that with the many teeth of the sprocket wheel engaging the perforations in the film, together with the manner in which the film encircles the wheel, it would be far less liable to cause damage than in other forms of movement where only one to three teeth engage on each side, and the pull on the film is in a straight line, without support between the teeth. The best that may be said of other movements is that they are cheaper to manufacture. In the selection of a machine it is of the most vital importance, whether you expect to rent or own your

## CHICAGO PROJECTING CO.

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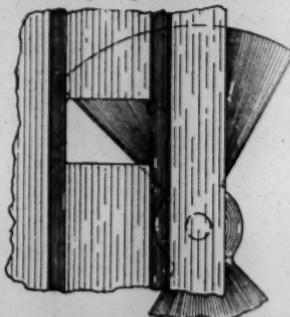
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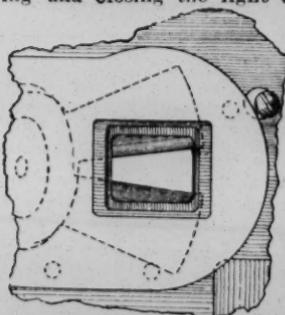
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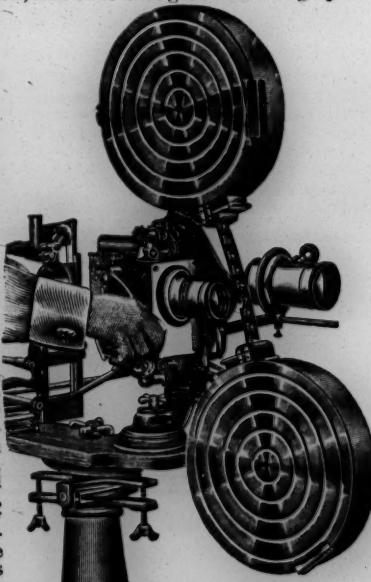
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## CHICAGO PROJECTING CO.

films, that it be of such construction that it will not tear the sprocket holes in the films, because a user who returns films to the rental agent in that condition will either get undesirable service or be discontinued entirely, besides the possibility of having to pay heavy damages on the films that are injured.

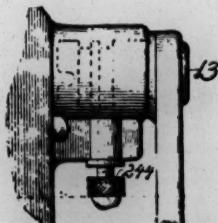
**The Care of the Films** is of the most vital importance, whether you be a renter or the owner, because in either instance you are responsible for their condition. Good pictures cannot be produced without good films. Films may be injured by little cracks at the corners of the sprocket holes; by the film jumping the sprocket, and the sprocket teeth puncturing or perforating the film; by having the sprocket holes torn entirely out at intervals; a series of divisions between the sprocket holes being torn out; the films may be pulled in two at different points and have to be spliced; the surface may be covered with fine or coarse scratches, which may extend the entire length of the film; the emulsion may be scraped off in spots, the result of which will be the flashing of light spots; the film may have holes burned in it, or it may be entirely consumed by a careless or thoughtless movement on the part of the operator. When you consider that the value of the average reel of film of 1000 feet in length is \$120, and that your machine is responsible for its length of life or depreciation, and that a single run through your machine may cost you any part of or the entire value of that film, you may begin to realize how important it is that you have in a Motion Picture Machine the best that money can buy.

**The Motiograph Quick Rewind** is an original, new and novel arrangement, for which a patent application has been filed, and nothing that approaches it is to be found on any other machine. It is a very great improvement over any other film-winding mechanism, in that the film is rewound direct from the main crank handle, which is in the most convenient and comfortable location for the operator, besides which the greater sweep of the handle makes it possible to rewind without fatigue, and by the power being communicated to the opposite side of the machine in order to reach the reel arbor, the magazine may be located with door toward the operator, an advantage that is highly prized by every operator of experience. In considering the advantages of this rewind as compared with others, do not overlook the fact that the location of the crank is on a line with the elbow of the operator, which is the easiest position for the arm, besides which the sweep of the crank is double that used on other forms of rewind, a further disadvantage of which is that they are placed on a line with the operator's face. If you havn't already had that experience, hold your arm in that position, turn a short crank with a heavy load for three minutes and see how you like it. Then imagine doing it every half hour, besides the regular work of operating the machine. It's a pleasure to rewind with the Motiograph. To shift the connection between the crank and the



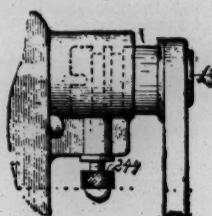
**Rewinding the Film on the Motiograph.**

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**Position of Crank when showing Pictures**  
and by the use of a few feet of white leader on the film, it is not even necessary to disconnect the film from either reel until the film is to be changed for a different subject.

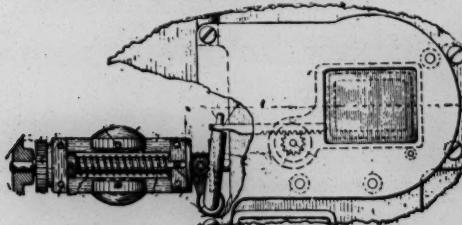
reel arbor, all that is necessary is to release the lock, turn the crank slightly, and pull it outward about  $\frac{1}{8}$  of an inch, to engage the rewind gear. When using this form of reeling mechanism in combination with fire-proof film magazines, it is unnecessary to remove either the magazine or the reel for rewinding; in fact, with reasonable care



**Position of Crank when Rewinding Film.**

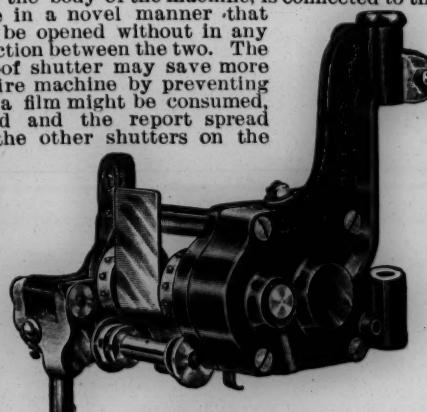
**The Fireproof Film Magazines** and four roller traps are a wonderful improvement that is fully described on another page.

**The Automatic Safety Fireproof Shutter** is absolutely the only safe shutter that has been designed for this class of work. The shutter is direct connected to a spring ball governor and does not have to depend on friction, gravity or air pressure as in other forms, but is closed by the action of the spring. The Ball Governor has proven its reliability by its universal use on the Steam Engine and the Talking Machine. The go-



ernor, which is located in the body of the machine, is connected to the shutter on the film gate in a novel manner that allows the film gate to be opened without in any way disturbing the connection between the two. The automatic safety fireproof shutter may save more than the cost of the entire machine by preventing a single accident where a film might be consumed, the audience stampeded and the report spread broadcast. Several of the other shutters on the market will stand open while the film is not in motion. A fireproof shutter is a necessity, but when you get one, be sure it is reliable. That's the Motiograph Shutter. This feature is original and exclusive, and a patent has been applied for.

**The Motiograph Framing Device** is the most perfect and practicable arrangement that has ever been devised for the purpose. It allows an adjustment of consider-

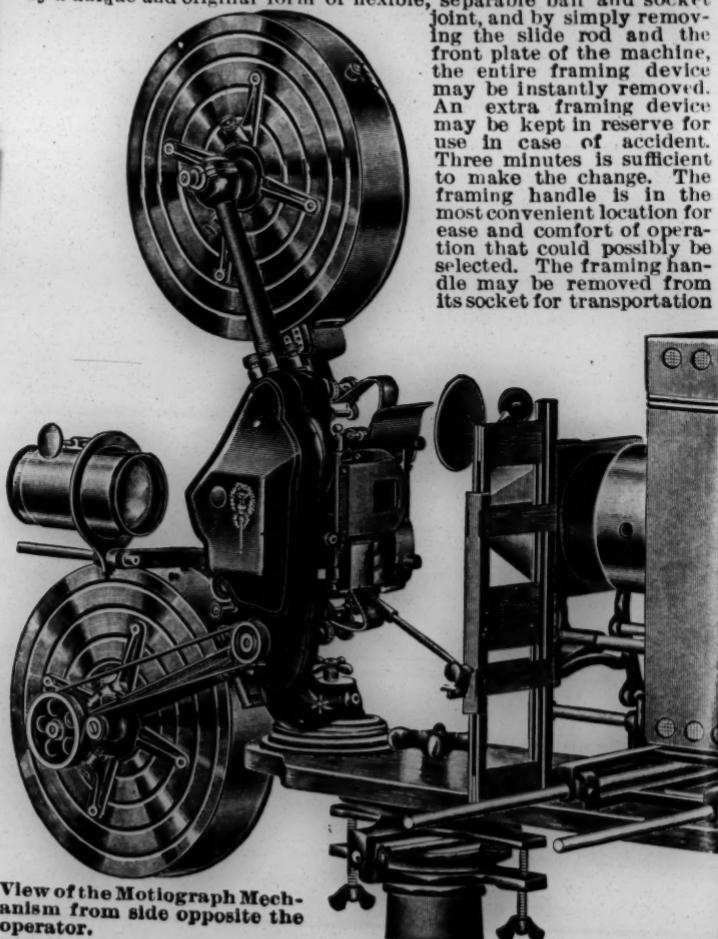


**Framing Device.  
Rear Right Side View.**

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ably over one picture, and in bringing the margin of the picture to a point that will match the margin of the light aperture it does so without disturbing any other part of the mechanism. The fact is, nothing but the Geneva Intermittent Pin Wheel and Star, the sprocket wheel and idler roller are carried on the framing device. The Pin Wheel and the Star are entirely enclosed, thus protecting these two parts that are most vital to the life and accuracy of the machine, from dirt and accident, besides retaining the oil. In other machines the framing device carries the shutter up and down, by reason of which the wing must be made larger, which considerably shortens the exposure of the picture and lengthens the non-exposure. The result is a greater amount of flicker. The framing device is connected to the driver gear by a unique and original form of flexible, separable ball and socket

joint, and by simply removing the slide rod and the front plate of the machine, the entire framing device may be instantly removed. An extra framing device may be kept in reserve for use in case of accident. Three minutes is sufficient to make the change. The framing handle is in the most convenient location for ease and comfort of operation that could possibly be selected. The framing handle may be removed from its socket for transportation



View of the Motiograph Mechanism from side opposite the operator.

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by giving it a few turns to unscrew it. A patent on this framing device has been applied for.

**Note.**—By "framing" is meant the act of shifting the film to make the margin of the picture coincide with the margin of the light opening in the machine.

**Flanged Sprocket Idle Rollers** are a great improvement that is original and is the subject of a patent. By their use the film is guided by its edges instead of depending on the sprocket teeth and the perforations, the latter of which, if imperfect or damaged, cannot be depended upon. When a film runs off the sprocket wheel it is almost sure to be seriously damaged, sometimes ruined for a considerable distance, but with the flanged rollers properly adjusted there is no danger from this direction.

**The Absence of Noise** is an important feature in the Motiograph. There is probably no other element that so seriously handicaps all efforts in the line of producing a high-class motion picture exhibition as a noisy machine. In the Motiograph the noise has been subdued by a combination of good workmanship, design, and the enclosing of the working parts. With the Motiograph it is not necessary to keep a piano, orchestra, or other musical instrument going to cover the noise while showing the Motion Pictures.

**Enclosed Gears and other working parts** are positively original in the Motiograph, and is a feature of the utmost importance. In public places there is unavoidably a great deal of dust. It is brought in on the feet and stirred up by the continuous stream of incomers and outgoers and naturally finds lodgment on any moist surface, such as the lubricated parts of a machine. Much of the dust is fine sand and grit, which gets into the bearings and other working parts, clogs them up, and quickly wears out and destroys the machine, besides rendering it at a very early date incapable of doing accurate work. Enclosed parts are of advantage also in that they preserve the oil longer and subdue the noise of the working parts.

The gears of the Motiograph are readily accessible for oiling, etc., by loosening three thumb screws and removing the side cover.

Sewing, mowing and other machines were at one time made with open gears and working parts, but experience prompted a change to the modern type with enclosed parts. The Motiograph is strictly ahead of the times in the Motion Picture line.

**The Motiograph Take-up** is not only entirely practicable and a thorough success, but in our estimation is necessary for the proper handling and care of the film. We are aware of the fact that there are take-ups on the market which are practically worthless, but the Motiograph Take-up is not only equal to every requirement and is a pleasure to operate, but is absolutely guaranteed. By its use the film is kept clean, is prevented from becoming entangled, scratched and torn, and is also protected from loss by fire in case of accidental ignition. The Motiograph Take-up is operated by a wide flexible flat belt, the tension of which is regulated by an adjustable idler pulley, which insures a positive uniform tension as well as a positive and continuous movement of the reel without the danger of tearing the sprocket holes in the film. The adjustment of the idler is accomplished by a set screw which is held in place by a check nut, and if the adjustment is made with reasonable care it may be depended upon absolutely. Such cannot be said of machines operated with round belts, which are naturally stiff, stubborn and unreliable.

**The Take-up Feeding Sprocket** is made a part of the Motiograph. While many machines are sold without them, we consider it a necessary part of the Motion Picture Machine, whether using a take-up or running films into a bag or box, because it is necessary not only for the safety of the film, but for the steadiness of the picture. This fact will be obvious to anyone that is familiar with the finer details of Motion Picture projection work.

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**The Indexed Turn Table Base** permits of the mechanism being turned a quarter turn either way, which is a great convenience for oiling, inspection, etc. It may be turned by loosening a single thumb nut, and as quickly clamped in place with vise-like firmness. It is indexed to indicate the proper location.

**The Frame of the Motiograph** is made in one solid piece of the finest quality of gray iron, and being made hollow, it possesses the greatest possible strength in proportion to the amount of material used. Its rigidity prevents the vibration that is very much in evidence in the pictures projected by other machines.

**Strength and rigidity are absolutely necessary** to steady pictures, as well as for durability, and in this respect the Motiograph mechanism is a marvel. While being designed, this object was kept prominently in view as being of the utmost importance. As previously stated, the slightest vibration in the mechanism will produce dancing or vibration of the picture on the screen that is very disagreeable.

**The Reel Arms** are of tapered cylindrical form, being hollow in the center, which not only gives them a most artistic appearance, but combines the greatest possible strength with the minimum of material. They are fitted to accurately machined surfaces, which insures absolute accuracy for the alignment of the film, a feature not to be found in any other machine. The arms are held in place by three artistic thumb screws in each. By an ingenious arrangement the thumb screws cannot fall out of the reel arms when the arms are detached.

**The Crank** is made detachable and is held in place by a neat little thumb screw, which engages in a groove in the main shaft. The thumb screw furnishes a positive fastening, which prevents the possibility of the crank accidentally becoming disengaged, and causing no end of annoyance in the middle of an exhibition. Another thumb screw locates the crank in the crank boss for engaging and disengaging the rewind mechanism.

**The Spring Gate Catch** used on the Motiograph is not only unique and simple, but is most convenient and effective. It is located at the most convenient point and a touch of the finger releases the gate. By the action of the film pressure springs, it is thrown open.

**The Heat Arrester Plate** on the film gate serves a double purpose—first, it protects the gate proper from the intense heat from the condensing lenses, which in turn would convey the heat to the pressure springs, and do more or less injury to the film; second, it serves as a shield and a protection to the automatic fire shutter.

**The Aperture Plate, the Sprocket Wheel and the Sprocket Idlers** have been designed with great care to avoid contact with the picture surface of the film. The arrangement by which this is accomplished prevents the unsightly scratches on the film which shows in the picture like rain or flashes of white.

**An Adjustable Bracket** for the Stereopticon lens is attached to the left front side of the mechanism frame. The Stereopticon lens may be accurately adjusted for height by a thumb screw, and for longitudinal position by a sliding adjustment, and is held firmly and in proper alignment.

**The Motiograph Reel** is universal and is made with the same care, the same class of workmanship, and from the same carefully selected material that is found in the body of the machine. A reel of good quality is essential to the proper care of the film. The sides are made of good smooth material, all edges carefully rounded, and are mounted on the core blocks to run true. They will fit and may be used on any standard machine.

**Separable Reels** may be had with the Motiograph when so specified in the order. By their use, it is not necessary to carry a reel for each roll of film. The rolls may be changed almost instantly, on and off a single reel, thus affording an advantage not alone in economy, but in making the outfit lighter and more compact for transportation. The reels are made of strong material and are lightened as much as is practicable by large perforations.

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**Interchangeable Parts** are one of the special features of the Motiograph. At a great expense a most complete set of special tools, dies, jigs, etc., have been made for the manufacturing of this machine. In fact, each and every part is made with a special tool, and some parts require many special tools. Not only has the set of tools been made complete, but every one has been finished as accurate and as perfect as practicable.

Interchangeable parts afford a great convenience to the operator, for, in case of accidental breakage of any part, a new part may be had from stock to take its place.

**The Bearings** for all of the high speed journals or pivots are made of phosphor bronze, which is the best anti-friction metal known for the purpose, are held in place by screws, and in case of wear they may easily be replaced with new ones.

**Standard Gauge.**—The Motiograph mechanism is designed to use the standard gauge film, which is in universal use the world over. While the perforations of the film made by different manufacturers are slightly different, the proportions of the sprocket teeth have been carefully designed with a view to securing the best possible results with all the different makes. This cannot be said of other machines.

**Simplicity** is a very strong point in favor of the Motiograph mechanism, as will be noted by comparison with other machines. No parts have been used that are not considered absolutely essential to the production of the results to be attained. Every part that comes in hourly use by the operator occupies the most convenient location, and its construction and manipulation is so simple that the most inexperienced will have no difficulty in immediately acquiring a knowledge of its operation.

**The Design** of the Motiograph mechanism will be readily recognized by those familiar with the business as a radical departure from those in general use, and there are several reasons for this radical departure, viz: a desire to obtain the maximum of strength with the minimum of material; that the working parts should all be enclosed; to have every working part in the most convenient location; and to combine with strength and rigidity the best possible artistic effect.

**The Finish** of the Motiograph mechanism is most artistic and durable and quite in keeping with the beautiful outlines and well balanced proportions. The frame, reel arms and magazine spiders are heavily coated with black enamel. The frame and arms are ornamented with a dainty striping, while the ornamentation of the frame proper is supplemented by small decalcomania designs. The front plate, the film gate, the crank, the framing handle, the swivel clamp nut, the take-up pulleys, sprocket idler brackets and other trimmings are nickel-plated and polished. The heat arrester plate on the film gate has a spotted copper-oxidized finish. The extension tubes, focusing ring, and telescope tube of the objective lens are nickel-plated, while the jacket or body of the lens and the upper and lower feeding sprockets are polished brass, protected with a greenish tint of imported lacquer. The fireproof magazines have a spotted copper-oxidized finish. The beauty of the combination must be seen to be appreciated.

**The Objective Lens** used on the Motiograph is the A. C. R. Special, the beauty and proportions of which are not approached by any other. The glasses are of the maximum standard size, and are carefully and accurately finished and focused, with a view to securing the maximum amount of illumination, with sharp and uniform detail in the picture. The quality of the Motiograph lens is strictly high grade in every regard, is excelled by none and is far superior to the average.

**The Spiral Focusing Ring** of the A. C. R. Special Lens, with triple bead knurled focusing band, is absolutely unapproached for ease and accuracy in focusing, convenience, neatness of design and finish. The jacket is finished in a rich yellow Egyptian bronze lacquer; the focusing band and lens tube are nickel-plated and the cells are finished in black enamel. The different colors are thus combined to bring about

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the most artistic effect. This new style lens mount is in keeping with progress in high grade photo lenses, is a very marked improvement over the old style "rack and pinion" focus movement, and, furthermore, it is not liable to injury in transportation. The Motiograph may be had with other styles of lenses when desired.

**A Wide Range in Size of Pictures** may be projected by the use of the A. C. R. Special Interchangeable lens cells, which enables the operator to locate his machine in any part of the hall that is most convenient, and yet project a picture of suitable size.

**The Interchangeable Lens Cells** are responsible for a Great Economy in lens purchases. By their use only one lens body is required, and that is the best that can be made. Different sizes of pictures may be projected without changing distance between machine and screen, by simply changing the cells in the lens. The cells are all marked with numbers to avoid the possibility of mistakes in selection.

An extension collar is required and is furnished with each complete lens or pair of lens cells (except the 3 inch and  $4\frac{1}{2}$  inch, which require none) to locate the mounting the proper distance away from the film to bring the lenses into focus. A "Table of Sizes" showing the different sizes of pictures that may be projected with the different lenses at different distances, and a complete description of the A. C. R. Special lenses will be found under the heading "Motion Picture Lenses." When ordering extra lens cells always state if they are to be used on the Motiograph.

**Extreme Short Focus Lenses** may be used with the Motiograph, owing to the location of the shutter, which is unusually near to the film—an arrangement that is accomplished by the peculiar construction of the Motiograph. Certain classes of work, where it is necessary to produce a very large picture compared to the distance the machine is located from the screen, can be produced only with a very wide angle lens, and such a lens can be used only where the location of the shutter will permit. The Motiograph is admirably adapted for this class of work.

**The Electric Motor Attachment** which has been designed to fit the machine may be added at any time. The pulley support is attached by machine screws to the gear cover, and has a loose socket connection with one of the spindles under the gear cover. The pulley takes a flat belt which is most reliable and desirable, and an idler pulley with screw adjustment provides a most perfect adjustment for the belt.

**The Slide Carrier Swing** is another important Motiograph improvement. By its use the slide carrier used for showing Stereopticon views may be instantly swung out from in front of the condensing lenses, thus allowing the use of the entire amount of illumination that passes through them, which means a saving of about 50 per cent over what is available when the slide carrier is allowed to remain in its normal position.

**The Motiograph Lamp House** is furnished in three styles, viz: The "Plain," the "Lid Off Wide Open" and the "Underwriters' Lid Off" Lamp House.

**The Plain Motiograph Lamp House** is made of best Russia iron, and opens on the side and rear only. It is the style in most general use in the smaller towns and cities, where it is not necessary to comply with special laws.

**The "Lid-off Wide Open" Lamp House** means just what the description says. The top opens entire and almost the entire right side opens. These features are of the greatest possible advantage and fill a long-felt want by those who are running continuous shows, which makes it necessary to change the carbons while the lamp house is hot.

The above are features not heretofore to be found in any other machine. Another advantage is that the lamp house is unusually large and roomy. It has porcelain bushings for the entrance of the wires. Ample ventilation is provided by a series of openings at top and bottom on both sides. The openings are covered with perforated sheet

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metal to prevent the exit of sparks from the carbons. The longitudinal swing for adjustment to the various lengths of foci of condensing lenses is six inches.

The Style B "Lid-off Wide Open" Lamp House, as above described, meets all ordinary requirements for fireproof protection.

The Style C, "Underwriters' Lid-off" Lamp House is the same as the preceding except that it has a smaller side door that is held shut by a strong spring hinge and has a heavy wire basket on the top to prevent contact with anything that might become ignited through contact with the lamp house. It also has a supplementary bottom made of Transite Board, which is an asbestos composition. The lid of Wide Open Asbestos Lamp House may be converted into the "Underwriters' Lid-off" at any time by the addition of the wire basket, supplementary bottom, and the spring door which is mounted on a panel that is attached to the lamp house by four screws.

The Burner Slide has long bearings and is of unusually rigid construction. The longitudinal adjustment is accomplished by means of a hand wheel in the rear of the lamp house.

The Condensing Lenses are mounted in a nickel-plated telescopic mounting which is held in place by two screws and two eccentric clamps. The mounting is easily and quickly removed for cleaning or changing the lenses.

A Dowser Shutter is mounted on the front of the cone and is convenient for shutting off the light to safeguard the film, especially when using a machine that is not equipped with the automatic fire-proof shutter. It is also of value in many cities where the fire ordinances are very rigid. The shutter may be used either on the top of the cone or on the left side. When used on top it is held either open or shut by a ball weight, and is opened and closed by a touch of the hand. It is located in the most convenient place possible for the operator. When located on the left side of the cone the shutter is to be held open by a foot treadle, which, when released, allows the shutter to close automatically. The dowser shutter may be changed from one location to the other by removing the cone and turning it. The cone is held in place by two dowel pins and two thumb screws.

The "Motio" Universal Arc Lamp is another special Motiograph production and is furnished with the Motiograph No. 1 complete equipments. Besides being heavy and strong and adapted in every particular for use on heavy currents, it is provided with improved heavy carbon clamps, which not only furnish ample contact surface to prevent short circuiting, but are sufficiently strong to serve all requirements. The carbons are held firmly between two strong jaws, and are clamped in place by a single thumb screw. The carbon clamps will hold firmly the entire range of sizes of carbons that are in general use.

All Hand Wheel Adjustments for Focusing are a special feature of the "Motio" Universal not to be found in any other arc lamp. This is a feature that will be much appreciated by experienced operators. Arc lamps have been in use with two hand wheel adjustments, but the "Motio" has all three, viz: vertical, sidewise and endwise. With the hand wheel adjustments the point of illumination may be accurately, quickly and positively adjusted to the focus of the condensers. Each adjustment is entirely independent of the other, which enables the operator to correct any one without disturbing the others. The vertical and sidewise adjustments and the carbon feed have flexible ball joint shafts or arbors, which permits of their being located stationary at the point where they pass through the rear of the lamp house. This arrangement is a very great advantage to the operator, as it enables him to get closer and quicker adjustments than would otherwise be practicable. All parts of the "Motio" Universal Arc Lamp are made accurate and strong. The material is brass, nickel-plated. The adjustment features of the "Motio" Universal are the subject of a patent applied for.

The "A. C. R." Underwriters' Rheostat is another improvement that is well suited to become a part of the Motiograph No. 1 Complete

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equipments. The A. C. R. Underwriters' Model will be found illustrated and fully described on another page. The Motiograph may also be had with other rheostats.

**Time for Improvement.**—There is probably not a dealer that is actively engaged in the business who has not heard many times from owners or managers of Electric Theatres statements similar to the following: "I would like to have a new machine, but I do not find anything on the market that comes up to my ideas of what a machine should be." We are pleased to be able to say that this class have found in the Motiograph just what they have been looking for.

**The Motiograph is the only machine of distinctive design** that has been originated and constructed since the advent of the Motion Picture Theatre, and as the Motion Picture Theatre has introduced new and most trying problems to be met in the Motion Picture line, the Motiograph was designed with a view to meeting every possible requirement; hence, in this particular, it has a decided advantage over machines that were designed prior to the introduction of this class of work, also those of recent construction that have been copied largely from the older designs.

**For Motion Picture Theatre Work** the requirements are most exacting. The patronage depends largely upon the quality of the pictures. The quality of pictures may be produced only with a machine of quality. The purchase of a good machine should not be looked upon as an expense in the starting of a Motion Picture Theatre, but as an investment, because, with the exception of the care of the machine, the expense ceases with the purchase of the same. While with the purchase of a cheap machine it may be well charged to expense, because it will not only be a continued source of expense, but will have to be replaced in a comparatively short time with a new machine.

**The Best Film Service** may be had from the film renting companies only when using a first-class machine, because the film renting companies are inclined to favor those who take good care of their films. When using the **Motiograph** you may expect to get the best possible film service if you are renting of a good company.

**The Traveling Exhibitor** will find that a machine that is adapted to the requirements of the Motion Picture Theatre is equally well adapted to his work. There is every reason why everything should run absolutely smooth with the show given by the traveling exhibitor. As a rule he is but one night in a place. He crowds a long entertainment into a comparatively short space of time. There is a set time for it to begin and approximately so for it to close. A single hitch in the proceedings practically ruins the entertainment. With the more progressive traveling exhibitors of today it is customary to intersperse their stereopticon views with motion picture films, ranging in length from fifty to a few hundred feet, and in order to avoid delays it is customary to make the films up into reels of about one thousand feet each, and in order to meet these requirements, have a machine that will handle one thousand feet of film properly, and at the same time project a steady and brilliant picture, and give the people their money's worth, he should have the best machine that money will buy.

**The Designer** of the Motiograph is not new at the business, as is the case with the designers of many new machines that have made their appearance on the market. He has been connected with the motion picture business since the time it first became a commercial success in the United States, and has been constantly associated with the business ever since. He is the inventor of a large number of patented articles that has been in general use, and many others that are in course of preparation for optical projection purposes.—a number that is probably three times greater than the useful patents issued to any other person or concern in the optical projection line. His inventions cover several distinct types of motion picture machines. It is absolutely essential that an inventor in any line should have the most thorough experience, and while it is quite easy to acquire the knowledge necessary to operate a good machine successfully, it is quite a different

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matter when it comes to the invention and designing, and requires all the knowledge that can be acquired by many years of constant application. This accounts for the fact that some machines may possess one good point to the almost utter disregard and exclusion of all the rest of the points that are of vital importance.

**It should be remembered** that steady pictures and durability are the results of correct design, accurate workmanship, and high grade materials. The desire to attain these three objects is responsible for the great care that has been taken in the designing and construction of the machine, together with the selection of the materials.

**The Workmanship** is a feature of Motiograph construction of which we are especially proud. Profit has been sacrificed at every turn by finishing each and every part as thorough and accurately as is practicable. We especially solicit a comparison by those who have sufficient mechanical knowledge to understand what good workmanship is, which, if carefully done, we believe will be nothing short of a revelation.

**Patents on the Motiograph.**—The Motiograph is protected by six patents granted and applied for, which, we believe, is twice the number of patented improvements in use on any other machine.

**Remember** that the "basic principles" that form the foundation of the Motiograph are fully covered, and that infringers, whether makers, sellers or users, are liable to vigorous prosecution.

**Dimensions of the Motiograph No. 1 Mechanism** are approximately as follows; Height from bottom of round base to top of body, 13 inches; to center of light opening, 8 $\frac{1}{4}$  inches; to center of light opening, when on sliding base, 8 $\frac{1}{4}$  inches; to upper reel arbor, 19 $\frac{1}{4}$  inches; length from film to front of lens threads in front plate, 4 inches; width with handle removed, including crank boss, about 8 $\frac{1}{4}$  inches; length of crank from center of main shaft to center of lens handle, 4 $\frac{1}{4}$  inches; width of turntable base at bottom, 5 inches; diameter tube, 1 $\frac{1}{4}$  inches.

**Weight of Mechanism.** including upper and lower reel arms, sub-base, crank and M. P. lens, 28 lbs; lower reel arm, 2 $\frac{1}{4}$  lbs; upper reel arm, 2 lbs; fireproof magazines, including spiders, per pair, 7 $\frac{1}{4}$  lbs.

**Dimensions of Lamp House.**—Height to center of condensing lenses, 8 $\frac{1}{4}$  inches; length of house, 10 $\frac{1}{4}$  inches; width, 6 inches; height, 12 $\frac{1}{4}$  inches; backward and forward swing, 6 inches; side swing, 8 inches.

**Weight of Lamp House,** complete, including double sliding base, baseboard and arc lamp (with condensers and slide carrier, complete), about 38 lbs.

**The Price** of the Motiograph is low considering the quality. It is not the intention to sell it in competition with cheap machines. The design is different, the material is different, the workmanship is different, and the quality of the work it does is vastly different. The price is about the same that is asked for some other machines, but the quality is very much superior in every regard.

**We feel confident** that if it were practicable for each and every one who is considering the purchase of a Motion Picture Machine to be able to personally examine the Motiograph, and see the pictures it projects, side by side with any other machine that he may be considering, we would find it easy to make the sale in every instance where the selection was intelligently made.

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# Motiograph No. 1 Model 1908

## Motion Picture Equipments

The Motiograph Motion Picture equipments consist of Motion Picture mechanism on swivel base, lamp house on sliding base, motion picture lens and stereopticon lens, and are designed for the projecting of both motion pictures and stereopticon or lantern views, being so arranged that the change from one to the other can be quickly made. While these equipments are designed especially for the use of the Motion Picture Theatre, they are equally well adapted to the requirements of the traveling exhibitor.

The Motion Picture mechanism in the following equipments is the same as described on the preceding pages. The motion picture lenses are known as the "A. C. R. Special," and may be had in varying lengths of foci, ranging from 3 inch to 8 inch.

The stereopticon lens is a special feature with the Motiograph equipment in that without additional charge the full one-half size mount is furnished in any focus ranging from 10 inch to 18 inch inclusive. These lenses are of very high grade and have extra well-finished mounts. By the use of the large size mounts, the diameter of which is 2½ inches, and lens glasses to match, a greater aperture is available for the passage of the light, which permits of greater illumination for the picture; is easier to focus; has greater depth of focus; is better adapted for projecting at an angle up, down or sidewise; gives a more brilliant picture; and is in every way better than to use one-fourth size mounts when the machine is located more than thirty feet from the screen. For the half size lenses of 24 inch focus an additional charge of \$1.50 will be made.

When stereopticon lenses of less than 10 inch focus are required, they will be furnished only in one-fourth size mounts, in which case an allowance of \$3.00 will be made from the price quoted for the equipments.

**Motion Picture Lenses of less than 3 inch focus will cost extra.**  
See list of "Roe Special" lenses.

### Motiograph Motion Picture Equipment "A"

INCLUDES

Hand Power Motiograph Mechanism No. 1, with automatic fire-proof shutter and swiveled base  
Upper Reel Arm  
Take-up Reel arm and Belt  
Stereopticon Lens Bracket and slide rod  
"A. C. R." Special Motion Picture Objective Lens  
Upper and Lower Fire Shields for film gate  
Two Ten Inch Universal Reels  
Piece of Ruled Mica for focusing  
Oil Can with long curved spout  
2 Screw Drivers  
"Lid-off Wide Open" Russia Iron Lamp House, complete, with double sliding base  
Lamp House Cone and Dowser Shutter

Extra Heavy Oak Base Board  
Pair of Condensing Lenses in nickel plated mount  
Motio Universal Arc Lamp with all hand wheel adjustments complete  
Roc Special Sr. Stereopticon Objective Lens in  $\frac{1}{2}$  size mount  
Double Slide Carrier  
Pair of Film Magazines, upper and lower, with four roller adjustable fire traps  
Gibraltar Swiveled Pedestal Stand, enamel finish  
Knife Switch and Fuse Block combined  
"A. C. R." Adjustable Rheostat, Underwriters' Model  
Three Pieces Asbestos Covered Wire

### PRICE

**Motiograph Motion Picture Equipment "A", complete as above, boxed and crated for shipment.....\$212.00**  
Weight of Equipment "A" net, about 135 lbs.  
Weight of Equipment "A" boxed and crated, 250 lbs.

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### Motigraph Motion Picture Equipment "A. U."

Equipment "A U" is the same as Equipment "A" except that it includes Underwriters' Wire Screen lamp house hood, Paneled Side Door with spring hinge, and auxiliary Bottom of transit asbestos board.

#### EQUIPMENT "A U" INCLUDES

Hand Power Motigraph Mechanism No. 1, with automatic fire-proof shutter and swiveled base	Auxiliary Lamp House Bottom of Transite Asbestos Board
Upper Reel Arm	Lamp House Cone and Dowsler Shutter
Take-up Reel Arm and Belt	Extra Heavy Oak Base Board
Stereopticon Lens Bracket and slide rod	Pair of Condensing Lenses in nickel plated mount
"A. C. R." Special Motion Picture Objective Lens	Motio Universal Arc Lamp, with all hand wheel adjustments complete
Upper and Lower Fire Shields for film gate	Roe Special Sr. Stereopticon Objective Lens in $\frac{1}{2}$ size mount
Two Ten Inch Universal Reels	Double Slide Carrier
Piece of Ruled Mica for focusing	Pair of Film Magazines, upper and lower, with four roller adjustable fire traps
Oil Can with long curved spout	Gibraltar Swiveled Pedestal Stand enamel finish
Screw Drivers	Knife Switch and Fuse Block combined
"Lid Off Wide Open" Russia Iron Lamp House, complete, with double sliding base	"A. C. R." Adjustable Rheostat, Underwriters' Model
Underwriters' Galvanized Wire Hood for lamp house top	Three Pieces Asbestos Covered Wire
Paneled Side Door, with spring hinge	

#### PRICE

**Motigraph Motion Picture Equipment "A U", complete as above, boxed and crated for shipment.....\$220.00**

Weight of Equipment "A U" net about 138 lbs.

Weight of Equipment "A U" boxed and crated, about 255 lbs.

#### IMPORTANT

The three pieces of Asbestos Covered Wire furnished with the equipments will reach a distance of about six feet from the machine. If more is needed it should be ordered, extra. See Stage Cable.

Fuses are not included with the electric switches and should be ordered extra.

A Metal Switch Cover is not included in the Underwriters' equipments, but will be required if to be used in Chicago, price.....\$1.80

The usual custom is to locate the switch in an asbestos lined box and attach it to the side of the operator's booth.

Prices will be quoted on application.

**CERTIFICATE of Inspection** from the City Electrician of Chicago for the Motigraph Motion Picture Machine if desired will cost..\$1.00

**Prices on Sundries and \* \* Allowances for Omissions Will be Found on Page Following the List of Equipments**

## CHICAGO PROJECTING CO.

### Motigraph Motion Picture Equipment "B"

Equipment "B" differs from equipment "A" in that the Gibraltar Swiveled Pedestal Stand is omitted, and telescopic extension legs and sockets for same substituted and it has a lighter base board.

#### EQUIPMENT "B" INCLUDES

Hand Power Motigraph Mechanism No. 1, with automatic fireproof shutter and swivel base	Heavy Oak Base Board
Upper Reel Arm	Pair of Condensing Lenses in nickel plated mount
Take-up Reel Arm and Belt	Motto Universal Arc Lamp, with all hand wheel adjustments complete
Stereopticon Lens Bracket and slide rod	Roe Special Sr. Stereopticon Objective Lens in $\frac{1}{2}$ size mount
"A. C. R." Special Motion Picture Objective Lens	Double Slide Carrier
Upper and Lower Fire Shields for film gate	Pair of Film Magazines, upper and lower, with four roller adjustable fire traps
Two Ten Inch Universal Reels	Telescopic Extension Legs and Sockets for same
Piece of Ruled Mica for focusing	Knife Switch and Fuse Block combined
Oil Can with long curved spout	"A. C. R." Adjustable Rheostat, Underwriters Model
2 Screw Drivers	Three Pieces Asbestos Covered Wire
"Lid Off Wide Open" Russia Iron Lamp House, complete, with double sliding base	
Lamp House Cone and Dowser Shutter	

#### PRICE

Motigraph Motion Picture Equipment "B", complete as above, boxed for shipment.....	\$200.00
Weight of Equipment "B" net, about 75 lbs.	
Weight of Equipment "B" boxed, about 185 lbs.	

### Motigraph Motion Picture Equipment "C"

Equipment "C" differs from Equipment "A" in that the Gibraltar Swiveled Pedestal stand, film magazines and lower shield are omitted, and telescopic extension legs and sockets for same included and it has a lighter base board.

#### EQUIPMENT "C" INCLUDES

Hand Power Motigraph Mechanism, with automatic fireproof shutter and swivel base	Heavy Oak Base Board
Upper Reel Arm	Pair of Condensing Lenses in nickel plated mount
Take-up Reel Arm and Belt	Motto Universal Arc Lamp, with all hand wheel adjustments complete
Stereopticon Lens Bracket and slide rod	Roe Special Sr. Stereopticon Objective Lens in $\frac{1}{2}$ size mount
"A. C. R." Special Motion Picture Objective Lens	Double Slide Carrier
Upper Fire Shield for film gate	Telescopic Extension Legs and Sockets for same
Two Ten Inch Universal Reels	Knife Switch and Fuse Block combined
Piece of Ruled Mica for focusing	"A. C. R." Adjustable Rheostat, Underwriters' Model
Oil Can with long curved spout	Three Pieces Asbestos Covered Wire
2 Screw Drivers	
"Lid-Off Wide Open" Russia Iron Lamp House, complete, with double sliding base	
Lamp House Cone and Dowser Shutter	

#### PRICE

Motigraph Motion Picture Equipment "C", complete as above, boxed for shipment.....	\$180.00
Weight of Equipment "C", net, about 70 lbs.	
Weight of Equipment "C" boxed, about 180 lbs.	

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### Motion Picture Equipment "D"

Equipment "D" differs from Equipment "A" in that the Gibraltar Swiveled Pedestal Stand, film magazines and lower shield are omitted and it has a lighter base board.

#### EQUIPMENT "D" INCLUDES

Hand Power Motiograph Mechanism, with automatic fireproof shutter and swivel base	Lamp House Cone and Dowsler Shutter
Upper Reel Arm	Heavy Oak Base Board
Take-up Reel Arm and Belt	Pair of Condensing Lenses in nickel plated mount
Stereopticon Lens Bracket and slide rod	Moto Universal Arc Lamp, with all hand wheel adjustments complete
"A. C. R." Special Motion Picture Objective Lens	Roe Special Sr. Stereopticon Objective Lens in $\frac{1}{2}$ size mount
Upper Fire Shield for film gate	Double Slide Carrier
Two Ten Inch Universal Reels	Knife Switch and Fuse Block combined
Piece of Ruled Mica for focusing	"A. C. R." Adjustable Rheostat, Underwriters' Model
Oil Can with long curved spout	Three Pieces Asbestos Covered Wire
2 Screw Drivers	
"Lid-Off Wide Open" Russia Iron Lamp House, complete, with double sliding base	

#### PRICE

**Motigraph Motion Picture Equipment "D", complete as above, boxed for shipment.....\$174.00**

Weight of Equipment "D" net, about 60 lbs.

Weight of Equipment "D", boxed, about 170 lbs.

### Motion Picture Equipment "E"

Equipment "E" differs from Equipment "A" in that the Gibraltar Swiveled Pedestal Stand, Take-Up, film magazines and shields are omitted and it has a lighter base board.

#### EQUIPMENT "E" INCLUDES

Hand Power Motiograph Mechanism, with automatic fireproof shutter and swivel base	Lamp House Cone and Dowsler Shutter
Upper Reel Arm	Heavy Oak Base Board
Stereopticon Lens Bracket and slide rod	Pair of Condensing Lenses in nickel plated mount
"A. C. R." Special Motion Picture Objective lens	Moto Universal Arc Lamp, with all hand wheel adjustments complete
Two Ten Inch Universal Reels	Roe Special Sr. Stereopticon Objective Lens in $\frac{1}{2}$ size mount
Piece of Ruled Mica for focusing	Double Slide Carrier
Oil Can with long curved spout	Knife Switch and Fuse Block combined
2 Screw Drivers	"A. C. R." Adjustable Rheostat, Underwriters' Model
"Lid-Off Wide Open" Russia Iron Lamp House, complete with double sliding base	Three Pieces Asbestos Covered Wire

#### PRICE

**Motigraph Motion Picture Equipment "E", complete as above, boxed for shipment.....\$162.00**

Weight of Equipment "E", net, about 60 lbs.

Weight of Equipment "E" boxed, about 170 lbs.

**Extra Wide Angle Lenses** may be had for the Motiograph, but cost extra. See list of Roe Special Motion Picture Lenses.

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### Motion Picture Equipment "E R"

Equipment "E R" differs from Equipment "A" in that the Gibraltar Swiveled Pedestal Stand, Take-Up film magazines and shields are omitted, and instead of "A.C.R." Adjustable Rheostat Underwriters' Model being included, choice may be had of "A.C.R." Non-Adjustable, Roe Adjustable, and Special Adjustable Rheostats. It has a lighter base board.

#### EQUIPMENT "E R" INCLUDES

- |   |  |
|---|--|
| Hand Power Motiograph Mechanism, with automatic fireproof shutter and swivel base | Lamp House Cone and Dowsler Shutter  |
| Upper Reel Arm  | Pair of Condensing Lenses in nickel plated mount                                     |
| Stereopticon Lens Bracket and slide rod   | Motio Universal Arc Lamp, with hand wheel adjustments complete                       |
| "A. C. R." Special Motion Picture Objective Lens                                  | Roe Special Sr. Stereopticon Objective Lens in $\frac{1}{2}$ size mount              |
| Two Ten Inch Universal Reels  | Double Slide Carrier   |
| Piece of Ruled Mica for focusing  | Knife Switch and Fuse Block combined   |
| Oil Can with long curved spout  | Choice of "A. C. R." Non-Adjustable, Roe Adjustable, or Special Adjustable Rhcostats |
| 2 Screw Drivers   | Three Pieces Asbestos Covered Wire   |
| "Lid-Off Wide Open" Russia Iron Lamp House, complete, with double sliding base    |  |
| Heavy Oak Base Board  |  |

#### PRICE

Motiograph Equipment "E R", complete as above, boxed for shipment.	\$157.00
Weight of Equipment "E R" net, about 60 lbs.	
Weight of Equipment "E R", boxed, about 170 lbs.	

### Motiograph "Economic" Motion Picture Equipment "F"

Equipment "F" differs from Equipment "A" in that the Gibraltar Pedestal Base, Automatic Fire Proof Shutter, Upper and Lower Film Magazines, Upper and Lower Fire Shields, "Roe Special Sr."  $\frac{1}{2}$  size Stereopticon Lens, "Lid-Off Wide Open" Lamp House, "A. C. R." Underwriters' Adjustable Rheostat, Extra Heavy Base Board and three pieces asbestos covered wire have been omitted, and the Telescopic Extension Legs, "Petite Sr." Stereopticon Objective Lens, Plain Lamp House (top does not open), Roe Adjustable Non-Adjustable, or Special Rheostat, and cotton insulated wire have been substituted.

- |  |  |
|--|--|
| Hand Power Motiograph Mechanism No. 1, with swivel base        | Heavy Oak Base Board   |
| Upper Reel Arm   | Pair of Condensing Lenses in nickel plated mount                   |
| Take-up Reel Arm and Belt                                      | Motio Universal Arc Lamp, with all hand wheel adjustments complete |
| Stereopticon Lens Bracket and slide rod                        | "Petite Sr." $\frac{1}{2}$ size Stereopticon Objective Lens        |
| "A. C. R." Special Motion Picture Objective Lens               | Double Slide Carrier   |
| Two Ten Inch Universal Beels                                   | Telescopic Extension Legs and Sockets for same                     |
| Piece of Ruled Mica for focusing                               | Knife Switch and Fuse Block combined                               |
| Oil Can with long curved spout                                 | Roe Adjustable, Non-Adjustable or Special Rheostat                 |
| 2 Screw Drivers  | Thirty feet of Flexible Cotton Insulated Wire                      |
| Plain Lamp House (top does not open), with double sliding base |  |
| Lamp House Cone and Dowsler Shutter                            |  |

#### PRICE

Motiograph Economic Motion Picture Equipment "F", complete as above, boxed for shipment.	\$145.00
Weight of Equipment "E R" net, about 70 lbs.	
Weight of Equipment "E R" boxed, about 180 lbs.	

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### Motigraph Motion Picture Equipment "G" for Calcium Light.

#### INCLUDES

Hand Power Motigraph Mechanism No. 1, with automatic fire-proof Shutter and swivel base  
Upper Reel Arm  
Take-up Reel Arm and Belt  
Stereopticon Lens Bracket and slide rod  
"A. C. R." Special Motion Picture Objective Lens  
Two Ten Inch Universal Reels  
One Piece of Ruled Mica for focusing  
Oil Can with long curved spout  
2 Screw Drivers  
Russia Iron Lamp House, plain (top does not open), complete with double sliding base

Lamp House Cone, with Dowsler Shutter  
Heavy Oak Base Board  
Pair of Condensing Lenses in nickel plated mount  
Roe Premier Calcium Jet "D," with needle valves  
Two Pieces Rubber Tubing  
Motio Universal Jet Adjustment Fixture  
Stereopticon Objective Lens in  $\frac{1}{2}$  size mount  
Double Slide Carrier  
Telescopic Extension Legs and Sockets for same

#### PRICE

**Motigraph Motion Picture Equipment "G", complete as above, boxed for shipment .....** \$146.00

Weight of Equipment "G", net, about 60 lbs.

Weight of Equipment "G", boxed, about 170 lbs.

**NOTE:**—In ordering equipments, it is always advisable to include one or two additional condensing lenses, so as to be prepared for breakage, which is liable to occur at any time.

**The Gibralter Swiveled Motion Picture Pedestal Stand,** may be had with any of the preceding Motigraph Equipments, when desired, instead of the telescopic extension legs and sockets, painted finish, at an additional cost of ..... \$9.00

**The Gibralter Swiveled Motion Picture Pedestal Stand** may be had with any of the preceding Motigraph Equipments, when desired, instead of the telescopic extension legs and sockets, enameled and decorated finish, at an additional cost of ..... \$12.00

### Motigraph Sundries

<b>Take-Up,</b> with thumb screws, Belt Adjuster, Belt and 10 inch Reel .....	\$15.00
<b>Framing Device,</b> complete, including Sprocket Wheel, Idler Roller, etc., as illustrated.....	\$24.00
<b>Belts,</b> extra, for Take-Up, each.....	.45
<b>Reels, Universal,</b> 10 inch.....	1.00
<b>Reels, Separable,</b> 10 inch.....	1.50
<b>Reels, Separable,</b> 8 inch.....	1.00
<b>Reel Clamp, Universal,</b> for clamping the reel on the reel shaft, each.....	1.25
<b>Lens Cells, "A. C. R." Special,</b> for Motigraph Motion Picture Machine, 3 inch focus, complete.....	6.00
<b>Lens Cells, "A. C. R." Special,</b> for Motigraph Motion Picture Machine, 3 $\frac{1}{2}$ inch focus, complete with extension collar.....	6.00
<b>Lens Cells, "A. C. R." Special,</b> for Motigraph Motion Picture Machine, 4 inch focus, complete, with extension collar.....	6.00
<b>Lens Cells, "A. C. R." Special,</b> for Motigraph Motion Picture Machine, 4 $\frac{1}{2}$ inch focus, front and rear.....	6.00
<b>Lens Cells, "A. C. R." Special,</b> for Motigraph Motion Picture Machine, 4 $\frac{1}{2}$ inch, 5 $\frac{1}{4}$ inch, 6 inch, 6 $\frac{1}{2}$ inch, 7 inch, 7 $\frac{1}{2}$ inch and 8 inch, front and rear, including extension collar .....	6.50

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The 3 inch,  $3\frac{1}{2}$  inch and 4 inch cells are complete in mount that screws into the rear of the lens body. All the others are separate for front and rear. The 3 inch and  $4\frac{1}{2}$  inch need no extension collars; all of the others do. In ordering be sure to state that they are for the Motiograph machine.

<b>Lens Ring</b> , threaded inside, for holding stereopticon lens on the mechanism rod and bracket.....	<b>\$1.20</b>
<b>Adaptors</b> , screw rings, for reducing $\frac{5}{8}$ to $\frac{3}{4}$ size, each.....	.75
<b>Lens Bracket</b> , without slide rod.....	<b>1.20</b>
<b>Slide Rod</b> , for lens bracket.....	.45
<b>Motiograph Fireproof Magazines</b> , upper or lower, each.....	<b>10.00</b>
<b>Upper Fire Shield</b> .....	<b>1.50</b>
<b>Lower Fire Shield</b> .....	<b>1.50</b>
<b>Electric Motor</b> , $\frac{1}{8}$ H. P., for operating Motion Picture machine. This motor is of special high grade, and must not be compared with motors of the ordinary type. It is well finished in every respect, and is dependable. It is furnished for direct current, 110 volt. Including speed regulator, Price... .....	<b>28.00</b>
<b>Electric Motor</b> , $\frac{1}{8}$ H. P., as above, but for 220 volt direct current, including speed regulator. Price.....	<b>30.50</b>
<b>Motor Pulley</b> with support, idler belt adjustment and gear cover, complete for Motiograph Motion Picture Machine. Price.....	<b>10.00</b>
<b>Motor Pulley</b> with support, idler belt adjustment and gear, when ordered with the Motiograph, extra.....	<b>8.50</b>

## Allowances

In making allowances for parts omitted from the equipments, we are unable on some parts to allow full list prices, owing to the fact that the equipment is listed at less than what it would be if listed at the total of the prices for individual articles.

<b>Film Magazines</b> , allowance, if omitted, each.....	<b>\$10.00</b>
<b>Take-up Reel Arm and Belt</b> , allowance, if omitted.....	<b>12.00</b>
<b>"A. C. R. Special" Motion Picture Objective Lens</b> , allowance, if omitted .....	6.00
<b>Stereopticon Objective Lens</b> , $\frac{5}{8}$ size, allowance, if omitted..	8.00
<b>Stereopticon Objective Lens</b> , $\frac{3}{4}$ size, allowance, if omitted..	4.50
<b>Stereopticon Objective Lens</b> , allowance if $\frac{3}{4}$ size mount is ordered where $\frac{5}{8}$ size mount is quoted .....	3.00
<b>Safety Fireproof Shutter</b> , allowance, if omitted.....	6.00
<b>Fire Shields</b> , upper or lower, allowance, if omitted, each.....	1.00
<b>Telescopic Extension Legs and Sockets</b> for same, allowance, if omitted .....	6.00
<b>"A. C. R." Non-Adjustable or Roe Adjustable Rheostats</b> , allowance, if omitted.....	8.00
<b>"A. C. R." Adjustable Rheostat, Underwriters' Model</b> , allowance, if omitted.....	12.00
<b>Roe Adjustable or "A. C. R." Non-Adjustable Rheostat instead of "A. C. R." Adjustable, Underwriters' Model</b> , allowance .....	5.00
<b>Knife Switch and Fuse Block</b> , allowance, if omitted.....	1.25
<b>Three Pieces Asbestos Covered Wire</b> , allowance, if omitted .....	2.00
<b>Plain Lamp House instead of "Lid-off Wide Open," allowance</b> .....	3.00
<b>Gibraltar Swiveled Pedestal Stand</b> , allowance, if omitted....	20.00
<b>Painted Gibraltar Pedestal Stand</b> instead of the better finished and enameled stand, allowance.....	5.60

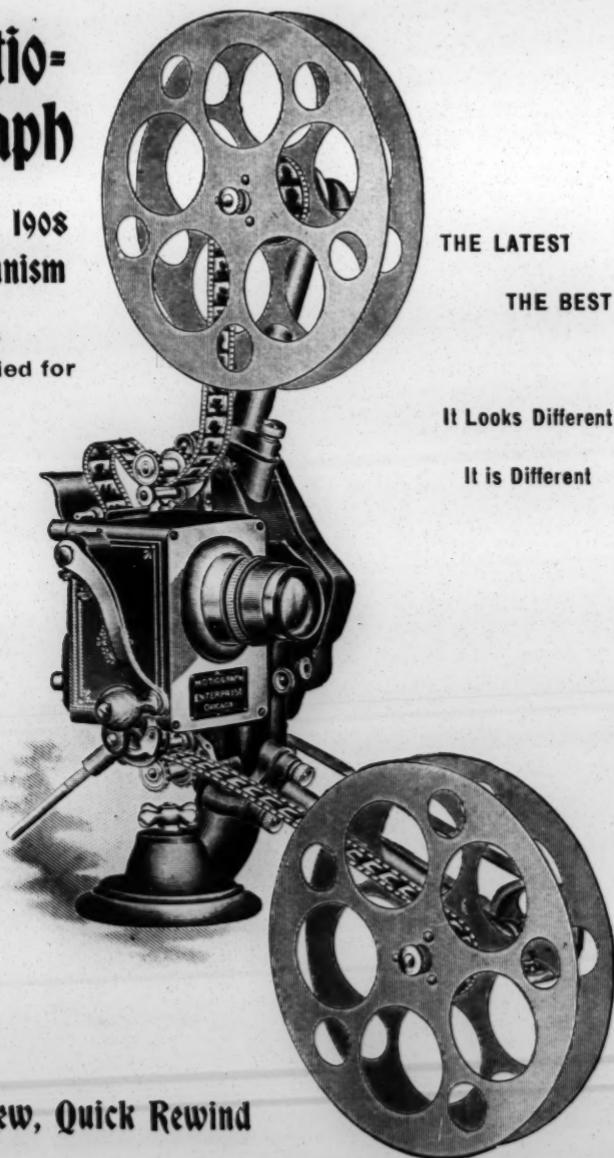
225 DEARBORN ST., CHICAGO, ILL.

# Motio- graph

Model 1908  
Mechanism

Patents

Applied for



has New, Quick Rewind

CHICAGO PROJECTING CO.

# Motigraph No. 1, Mechanism Only

## MODEL 1908

As Illustrated on the Preceding Page

### INCLUDES

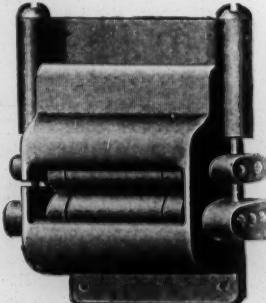
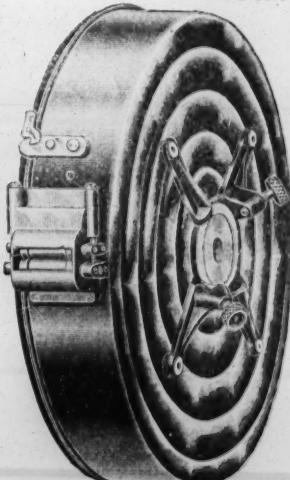
Hand Power Motigraph Mechanism No. 1 with Automatic Fire Proof Shutter	Stereopticon Lens Bracket and Slide Rod
Swivel Base	"A. C. R. Special" Motion Picture Objective Lens
Upper Reel Arm	Two Ten Inch Universal Reels
Take Up Reel Arm and Belt	One Oil Can with long curved One Screw Driver

### PRICE

Motigraph No. 1, Model 1908 Complete Mechanism, as above, boxed for shipment	\$118.00
Weight, net, about 28 lbs.	
Weight, boxed, about 35 lbs.	
For Motigraph Mechanism as listed above, but without Take-Up	\$106.00
For Motigraph Mechanism as listed above, including "Petite Sr." Stereopticon Lens in $\frac{1}{4}$ size mount, 6 to 12 inch focus, add for the lens	\$6.00
For Motigraph Mechanism as listed above, including "Roe Special Sr." Stereopticon Lens in $\frac{1}{2}$ size mount, 12 to 21 inch focus, add for lens	\$15.00

## Film Magazines

For the Motigraph No. 1, Model 1908, Motion Picture Machine



Enlarged View of Fire Trap or Valve.

where it passes the light aperture in the machine might become ignited and quickly carry the flame to both reels, in which case they would in all probability be entirely consumed. The purpose of the fireproof

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magazines is to prevent any accident of this nature, and to fill this requirement the Motiograph Fireproof Film Magazine can be depended upon absolutely.

Both the body and the lid of the magazine is made of strong sheet steel, which is spun to shape and is assembled without the use of solder. The magazine is circular in form, conforming to the shape of the reel, hence there is no waste of space, and no superfluous weight. They are much more artistic and more convenient than if made square. The cover of the magazine is provided with a strong spring catch, which holds the cover securely in place.

Each magazine is equipped with an Automatic Four Roller Fire Trap, which is so arranged that it may be opened for removing the film at any stage of either the projection or rewinding, and is automatically closed by spring pressure. The film on entering the magazine passes between the two pairs of rollers which are held in close touch with the film by spring tension, but are prevented from exerting pressure upon it by adjustable screw stops, by which arrangement wear on the film is prevented, and the machine will run easier.

One of the rollers has flanges on each end to hold the film in line with the aperture in the fire trap, and this prevents friction on the edge of the film. The rollers are also all slightly reduced in diameter, leaving only a narrow band at each end, by which arrangement contact with the picture surface of the film is prevented and the unsightly scratches, called "rain," are prevented. As these two pairs of rollers are set just close enough not to press tightly on the film, it would be absolutely impossible for fire to pass them. This feature is of the utmost importance, and of great value to both the owner and the operator, for at any moment a pair of these magazines may save many times their cost.

The magazine is mounted on a heavy metal spider, which is fitted on the reel arm and is held firmly in position by two thumb screws. But a few moments are required to attach the magazines to or detach them from the reel arm heads. By simply loosening the two thumb screws above referred to, the magazines may instantly be turned to a convenient position for rewinding the film, and it is unnecessary to remove either the magazines or film for rewinding. This feature is illustrated in the description of the mechanism.

The spider is finished in black enamel, the thumb screws nickel-plated, and the magazine has spotted copper oxidized finish, over which is a coat of lacquer. They are neat and artistic in both design and finish, and are strong and unusually well made.

### PRICES

**Motiograph Film Magazine**, with four roller fire trap and spider, complete, each..... **\$10.00**

**Fire Trap, or Valve**, with four rollers, adjustable, each..... **4.50**

NOTE.—In ordering state whether the lower or upper magazine is required, as the two are mounted slightly different, in order that they may stop at the proper point.

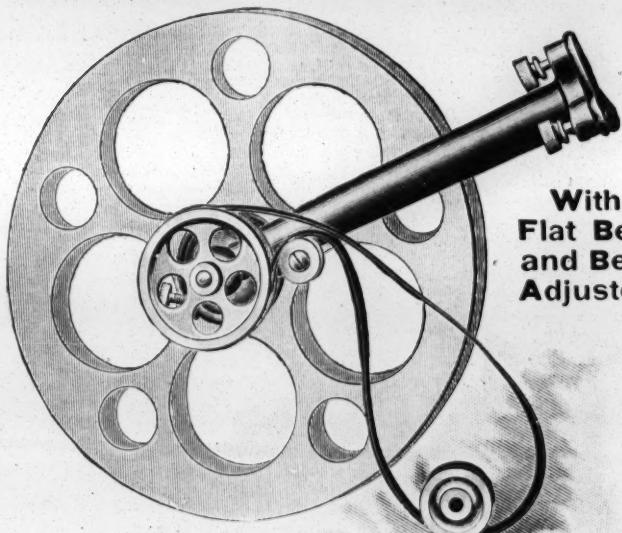
**MOTOR PULLEY** for the Motiograph Motion Picture Machine. Is mounted on a gear cover to take the place of the regular gear cover and connects to a shaft of the machine by a loose socket joint which does not interfere with the speedy removal or replacing of the gear cover. Has pulley for broad flat belt, screw adjustable belt idler, and is well finished. The cover is enameled and the pulley support, idler, arm, etc., are nickle plated. A superior article. Price complete, ..... **\$10.00**

If ordered with the Motiograph to take the place of the regular gear cover... **\$8.50**



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## Motiograph Take-up Attachment



With  
Flat Belt  
and Belt  
Adjuster

While the Take-up is properly a part of the Motiograph Motion Picture Machine and should always be included in the original order, there are some who, for reasons of their own, may desire to order the machine without the take-up, for which reason we have listed it without the take-up and list the take-up herewith as an attachment.

There are some who have the impression, from experience with unreliable apparatus, that the take-up is not satisfactory, and while such an opinion is correct as regards some of the apparatus that is on the market, it does not in any manner apply to the Motiograph Take-up. The Motiograph Take-up is not an experiment. It is strong, reliable and is a necessary element to a first-class motion picture machine. It serves as a protection to the film, prevents it from becoming entangled and often torn as when using a floor magazine, box or bag, and is a great convenience to the operator, who, after having used one, **would not willingly do without it.**

The Motiograph Take-up is operated by a wide flexible **flat belt**, the tension of which is regulated by an adjustable idler pulley which insures a positive uniform tension as well as a positive and continuous movement of the reel without the danger of tearing the sprocket holes in the film. The adjustment of the idler is accomplished by a set screw which is held in place by a check nut, and if the adjustment is made with reasonable care, it may be depended upon absolutely. Round belts are naturally stiff, stubborn and unreliable.

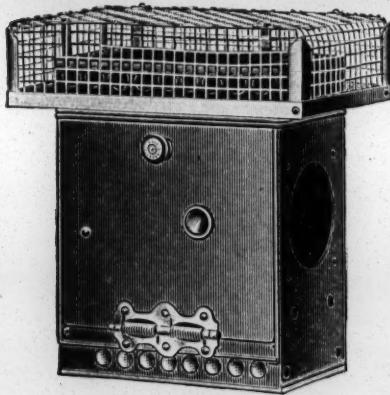
The Take-up is attached to the main frame by three artistic thumb screws, which require but a moment to insert, and as the base of the arm and the bosses on the frame are accurately machined, it may be depended upon to fit accurately and firmly. It requires no adjustment after attaching.

### PRICE

Motiograph Take-up for Model 1904 No. 1 Motiograph, with thumb screws, belt adjustment, belt and 10 inch reel..... \$15.00

225 DEARBORN ST., CHICAGO, ILL.

THE  
**Underwriters' Fireproof Lamphouse**  
For the Motiograph No. 1, Model 1908 Motion Picture Machine



This Lamp House has been designed especially with a view to complying with the fire insurance and city ordinance requirements of a few cities that have more or less strict regulations with relation to the use of Motion Picture Machines, and it may be depended upon to meet all requirements of which we have a knowledge at the time of issuing this catalog—in fact, it will be furnished with a certificate of inspection from the city electrician of Chicago, when required, and the regulations in Chicago are probably the most severe of any city in the country, owing to the great theatre disaster of a few years ago.

The Lamp House is made of Russia iron without the use of solder, all joints being seamed or riveted. It is well supplied with ventilation, all openings for which are covered with wire gauze of fine mesh.

The door is provided with strong spring hinges, which hold it in a closed position. The electric wires enter the lamphouse through porcelain bushings.

A heavy wire basket is provided for the top of the Lamp House to prevent contact with anything that might become ignited.

The rear of the Lamp House is provided with two slides that close tightly on the stems of the arc lamp, and are held in position when closed by a screw clamp.

An auxiliary bottom of transite Asbestos board is provided, to comply with the further requirements of the Underwriters' and Municipal authorities.

**PRICES.**

<b>Underwriters' Lamp House</b> , complete as illustrated and described above.....	<b>\$15.00</b>
<b>Underwriters' Lamp House</b> , complete with double sliding base, cone front with dowsing shutter, pair of condensing lenses in mount, spring hinged side door, Underwriters' Wire Lamp House hood, saddle support for burner, and Motio hand feed arc lamp with all hand wheel adjustments on heavy oak base board and slide carrier.....	<b>44.00</b>
<b>Lamp House</b> complete as above but without Underwriters' attachments.....	<b>36.00</b>
<b>Underwriters' Side Door</b> with spring hinge on panel, for use on Motiograph Lamp House.....	<b>3.50</b>
<b>Auxiliary Bottom of Transite Asbestos Board</b> , for Motiograph Lamp House.....	<b>1.80</b>
<b>Underwriters' Galvanized Wire Hood</b> , of heavy wire, with supports for same, and screws for attaching.....	<b>3.50</b>
<b>Mica Panels</b> , for insulation lining of top and bottom of Lamp House (required by some municipalities) each.....	<b>.90</b>
<b>Switch Casing</b> , Sheet Metal.....	<b>1.80</b>
<b>Fire Shields</b> for Motiograph film gate, upper and lower, each...	<b>1.50</b>
<b>CERTIFICATE of Inspection</b> from City Electrician of Chicago	<b>1.00</b>

## CHICAGO PROJECTING CO.

# The Motiograph Vise Grip Sliding Base

This attachment has been designed with a view to furnishing a substantial means for connecting the Motionograph mechanism with a single or double stereopticon.



It is arranged so that the Motiograph mechanism may be slid to the left in front of the lantern when motion pictures are to be shown, and slid to the right, carrying the stereopticon lens in front of the lantern, when stereopticon views are to be shown.

The frame should be screwed firmly to the baseboard on which both the motion picture mechanism and lantern should be mounted. The slide is so arranged that when the Motiograph is in position for showing motion pictures, that it may be locked in place with a vise-like grip, which prevents vibration and dancing of the picture.

When using the Motograph Sliding Base with the Enterprise Lantern, extension legs and truss should be ordered, for the purpose of raising the lantern so the center of the condensing and objective lens will coincide with the center of the light aperture of the motion picture machine, the height of which is 9 inches from the baseboard.

When using a lantern other than the Enterprise, it may be elevated by the use of a wood frame.

The Sliding Base is finished in hard black japan and the thumb nut nickel plated.

## **DIMENSIONS.**

Length, 13 inches; width, 7½ inches; swing of slide, 8 inches. Net weight, 4½ lbs.

<b>PRICES.</b>	
<b>Motigraph Vise Grip Sliding Base, with screws..... . . . . .</b>	<b>\$ 6.00</b>
<b>Truss and Four Extension Legs, for raising the Enterprise Lantern to fit the Motigraph Mechanism..... . . . . .</b>	<b>1.80</b>

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## • • Testimonials • •

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CHARLES S. NOURSE KINETOSCOPE CO.

**Moving Pictures, Illustrated Songs,  
Panoramic Scenes**

We have the Goods and Know How to Show Them

Chicago Projecting Co.,  
Chicago, Ill.

ESTHERVILLE, IOWA, July 10th, 1907.

Gentlemen:-The Optigraph No. 4 which I bought of you several months ago is a dandy-O.K.; has been pounding every day since and does fine work.

Yours respectfully,  
Chas. S. Nourse

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## **OLYMPIC THEATRE**

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Grand Rapids Wis July 2nd, 1908.

Chicago Projecting Co.

Gentlemen:-The Motiograph we purchased of you is giving the best of satisfaction. We can take any old film with torn sprocket holes and put a steady picture on the screen. Every one who visits us speaks in praise of our pictures. If any of your customers want any information we will gladly answer all questions. We do not hesitate to say that it is undoubtedly the best machine on the market.

Yours truly,  
T. H. Smart, Mgr.

225 DEARBORN ST., CHICAGO, ILL.

# THE GIBRALTAR Swiveled Pedestal Stand

For Motion Picture Machines



This new type of stand has been designed especially to meet the requirements of Motion Picture Theatres and other places where a Motion Picture Machine can be permanently located. It is obvious that the least vibration in the stand is magnified two hundred times in projecting a picture one hundred feet from the machine to the screen; hence the necessity of securing the greatest possible rigidity will present itself as a feature of the most vital importance. The pedestal of the Gibraltar Stand is made of one piece of gray iron, with 18 inch floor diameter, is hollow, and when it is properly clamped in position on the floor by bolts or leg screws, it can readily be seen that it has been properly named.

Besides furnishing an absolutely stable and solid support for the machine, the Gibraltar Motion Picture Machine Stand is provided with a turntable, which will be found one of the greatest possible conveniences to the operator in that for the examination, adjustment or oiling of the machine, for sweeping out, etc., the machine can be swung on its stand to any other position desired, instantly restored to its original position and securely clamped in place by a single turn of the hand wheel.

Another and very important feature is that the picture may be quickly adjusted by thumb screws to any location up or down on the screen, and securely held where wanted. The Gibraltar Stand is adapted for use with any machine.

The height from floor to top of turntable is about 33 inches, a most comfortable height for the operator. Weight of the stand, net, about 55 pounds. Weight, crated for shipment, about 65 pounds.

The Gibraltar Stand is furnished in two grades, viz: the No. 1 and the No. 2. The No. 1 grade is ground and filed to make the surface smooth and even, and is carefully machined. The finish consists of a coat of filler to give a smooth and even surface, over which is two coats of baked hard enamel, such as is used on bicycles.

The decoration consists of gold striping in artistic design, and adds much to the appearance of the stand.

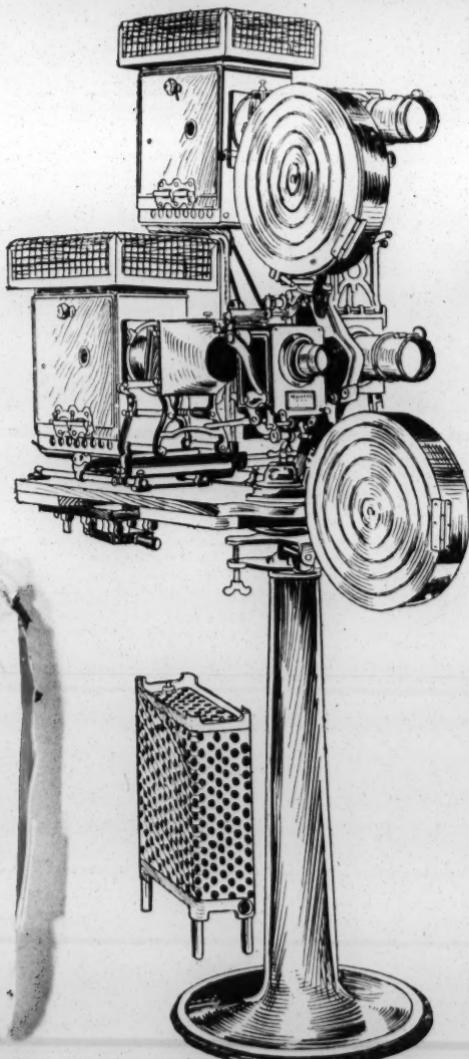
The No. 2 grade differs from the No. 1 in that it is not so smooth, and that it has a painted instead of enameled finish, and is not decorated. It is accurately machined, and although not so artistic in appearance, will give the same results as the No. 1 grade.

## PRICES

No. 1 Gibraltar Motion Picture Machine Stand, enameled and decorated finish, including base bolts, but without board for machine.....	\$20.00
No. 2 Gibraltar Motion Picture Machine Stand, painted and not so carefully finished, including bolts, but without board for machine.....	17.00
Oak Base Board for machine, extra heavy, well finished and varnished, fitted for pedestal top.....	3.00

CHICAGO PROJECTING CO.

# The Stereo-Motiograph



Is Another  
Motiograph  
Improvement

Shows  
Dissolving  
Stereopticon  
Views  
In  
Combination  
With  
Motion  
Pictures  
as they should  
be shown.

What it  
accomplishes  
is truly  
wonderful

See Description on Following Page

225 DEARBORN ST., CHICAGO, ILL.

## If You Want the Reputation of Giving the BEST SHOW IN TOWN

Don't Slide Your Stereopticon Views, But Show Them  
With the Dissolving Combination

## Stereo-Motograph

### It Shows

Stereopticon Views and Motion Pictures as they should be shown. The Stereopticon views are projected with that mysterious and beautiful effect by which one view is made to gradually fade away and the next succeeding one grows out of the haze of the one last shown. The Stereo-Motograph is not to be compared with the cheap make-shift arrangements usually sold for dissolving work, but is characterized throughout by the same type of design and workmanship that has placed the Motograph so far ahead of other Motion Picture Machines. One of the special features of the Stereo-Motograph is the new type of shutter, a novel arrangement which furnishes a rigid support and steady guide for the shutter and may be so accurately adjusted and is so dependable that a perfect dissolving effect is easily obtained. The dissolving handle is placed back of the lantern front where it is in a most convenient location for the operator and is connected to the shutter lever by a telescopic rod which permits of the free adjustment of the lenses for focus.

Another great advantage to be found only in the Stereo-Motograph is the all screw adjustments for centering the views on the screen, and the system of locking the adjustments to make the whole apparatus rigid. The lower front slides on a rigid track and is well braced. The upper Stereopticon has a bellows of extra length and the side radiation of light from the lower is prevented by the metal hood. Both upper and lower are equipped with the Motograph slide carrier swing.

Both the lower and the upper Lamp Houses have the backward and forward adjustment. The upper lantern has a light but rigid and well braced tubular support.

The Stereo-Motograph equipment may be had either with or without the Underwriters' Fire-proof equipment for the lamp houses, which consists of wire hood, spring door, transite bottom, etc.

### PRICES.

#### STEREO-MOTIOGRAPH CONSISTING OF

Motograph Motion Picture Equipment "AA" same as "A" described on another page, except that it includes Universal Underwriters' Rheostat, instead of "A. C. R" Adjustable.	\$212.00
Top Motograph Lantern with regular Motograph Lamp House, one-half size lens, and extra length bellows.....	
Motograph Arc Lamp with hand wheel adjustments,	
Braced Tubular Rear Support, Screw Adjustable Front Support for top lantern and Sliding Adjustable Support for lower lantern front.....	67.00
Motograph Double Shutter Electric Dissolver.....	
One Extra Switch and fuse block for top lantern.....	2.00
Wire for connecting top lantern.....	3.00
	<u>\$284.00</u>

**Triple Stereo-Motograph**, including the third lantern, extra shutter, extra non-adjustable Rheostat, switch wire, etc... \$351.50

**Underwriters' Equipment** for both Motograph and second Lantern, consisting of Underwriters' Galvanized Wire Hood for Lamp House Top, paneled side door with spring hinge, auxiliary bottom of transite asbestos board, and mica lining for top and bottom of lamp houses, each \$8.00..... \$16.00

**THE TRIPLE-STEREO-MOTIOGRAPH** which consists of the Stereo-Motograph and a Third Lantern may be used to advantage for projecting a colored border for both stereopticon and motion pictures, for mysterious or fancy dissolving work, etc.

CHICAGO PROJECTING CO.

• • Testimonials • •



A JOLLY MAN'S TROUBLES

and Advanced Vaudeville

M. W. MCQUIGG, Manager



Enroute Mattoon, Ill., 2-8-08.

Chicago Projecting Co.,

E. D. Otis, Mgr.

Dear Sir:-I wish to say a good word for the Optigraph No. 4. I have run it one season and this far on the second season, and practically every night I take down and put up every day as I am with a company doing one night stands and the No. 4 has them all skinned. I have been operating for fifteen years and all kinds of machines, but the Optigraph is my choice and I prefer it to any other machine.

I remain yours for business,

L. M. Douglas,  
Springfield, 12th; Quincy, 14th; Shelbyville, 10th.

CENTRAL UNIVERSITY

DANVILLE, KY., 3-16-07

Mr. E. D. Otis,

Chicago Projecting Co.,

Dear Sir:-It gives me pleasure to state that after a thorough test conducted by two gentlemen connected with the Physical Laboratory of the University and myself, we unanimously decided that your Optigraph surpassed the \_\_\_\_\_ machine in almost all essential points and that it has been decided therefore to purchase it for the department.

I congratulate you on the ingenuity and handiness of the mechanism.  
Wishing you further success, I am

Very truly yours,

T. Lindsey Blayney.

1908.

Chicago Projecting Co.

Chicago, Ill.

My Dear Sirs:-I cannot withhold my appreciation of your splendid treatment toward me in the past several years. The most honest methods and cordial dealings upon your part has characterized every transaction I have had with you. I have used your various supplies with far better results than those of other firms. Your Optigraph No. 4 absolutely excels every other motion picture machine for the travelling exhibitor, and I have had a practical experience with several others. I have made a vast amount of money in the past four years with the original outfit I purchased of you.

I ask for no prompter service, more pleasant dealings, or courteous treatment than you have always shown me. I started with no knowledge of the business whatever, and now have a splendid place among the list of "high quality" talent in the largest Lyceum Bureau in the world. You have positively been of great assistance to me on this road to success, for which I give you my heart felt thanks and future orders.

Very sincerely yours,  
W. Walter Blair.

Alberton, La., July 29, 1907

Messrs. Chicago Projecting Co.,

Chicago,

Gents:-Goods to hand and give entire satisfaction, have given four entertainments with it and like it so well I would not take my money back with 25 per cent or even more and do without. Hoping you great success in business and am willing to show my instrument to any one desiring to purchase, I remain

Respectfully yours,  
J. C. Wilcox.

225 DEARBORN ST., CHICAGO, ILL.

# The New Optigraph No. 4 Complete Motion Picture Machine.

Model  
1907



Weight, net, about 40 lbs.

Weight, boxed, about 70 lbs.

NOTE—If Take Up Device is not wanted, quote \$6.50 from prices quoted, if wanted instead of plain Reel Head, \$3.50 to plain Reel Head is wanted instead of plain Reel Head.

Especially adapted to any class of work where the use of Lantern Views is of secondary consideration. The Lamp House is large and roomy, is supported on sliding ways by a backward and forward adjustment of  $4\frac{1}{2}$  inches, and together with the Optigraph and sliding base, is mounted on a separable oak base board. The base may be easily divided for convenience in transportation, but while in use is held together by ingenious screw clamps, which makes it as rigid as a solid board.

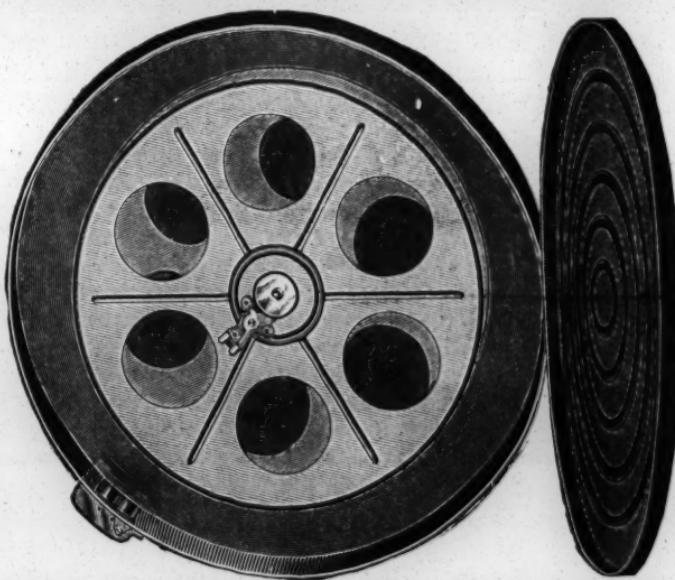
## PRICES

Complete Optigraph No. 4, Mechanism, 3 in. lens, Sliding Adjustable Lamp House, Condensing Lenses, Burner Support, Vise Grip Sliding Base, Bracket, Arm, Screw Ring, Take Up Device, Stereopticon, Objective Lens 6 to 12 inch, focus in  $\frac{1}{4}$  size mount, eight-inch Reel, Plain Reel Head, Arc Lamp, Rheostat, (52 to 110 volt) Knife switch and 30 feet of insulated wire \$75.00  
Complete Machine, as above, with "Roe Special" No. 2 Calcium Jet and eight feet of rubber tubing \$72.00

CHICAGO PROJECTING CO.

# ∴ Fireproof Magazines. ∴

Another Important Optigraph Improvement for 1907



The object of these magazines is to provide protection to the film while in use in case, through carelessness of the operator, the film should become ignited. The magazines are made of strong sheet metal, are spun to shape, corrugated to give strength, are neat and artistic in both finish and design. Being circular in form, they conform to the shape of the reels, hence there is no waste space, or superfluous weight, and they are much more artistic, also more convenient than if made square.

Each magazine is equipped with a "Trap" consisting of a pair of rollers through which the film passes to and from the machine. As these rollers are held in contact by spring tension, the film cannot burn beyond the point where it passes between them. The cover of the magazine is provided with spring catches to hold it in place.

The magazine is mounted on a metal spider which fits on to the reel head and is held in position by screws. But a few moments are required to attach or detach the magazines from the reel heads. The magazines are interchangeable with both the upper and lower reel heads.

### .. PRICES ..

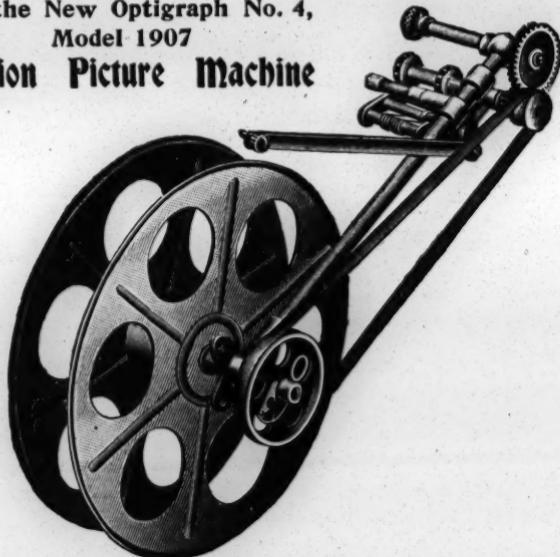
Fire-Proof Magazine, including screws, each.....	8.00
Fire-Proof Magazines, including screws, per pair.....	15.00

225 DEARBORN ST., CHICAGO, ILL.

## .... No. 4 Take Up Attachment ....

For the New Optigraph No. 4,  
Model 1907

Motion Picture Machine



This attachment was designed to fill the requirements of those who prefer to have their films rolled up on a reel as they pass through the machine instead of running them into a bag, box or other receptacle. It is constructed on the same plan as the upper reel, except that it has the feed sprocket on the reel arm instead of being on the body of the machine.

The No. 4 Take Up Attachment has a geared connection with the main part of the machine and is held in place by a bolt and thumb nut which form a part of the device. The geared connection is positive in its action and will not catch or bind as in chain-driven mechanisms. A metal strap attached by a thumb screw to the upper part of the main frame of the Optigraph serves as a rigid support and relieves the bolt of any unnecessary strain.

The attachment may be instantly attached or detached by the manipulation of two thumb screws.

This attachment is intended for use only with the No. 4 Optigraph and cannot be used with the No. 3½ Optigraph.

### . . . P R I C E . . .

The No. 4 Take Up Attachment, with belt and 8 inch reel.... \$ 8.00

The reels used on the Take Up are the same as for the body of the machine.

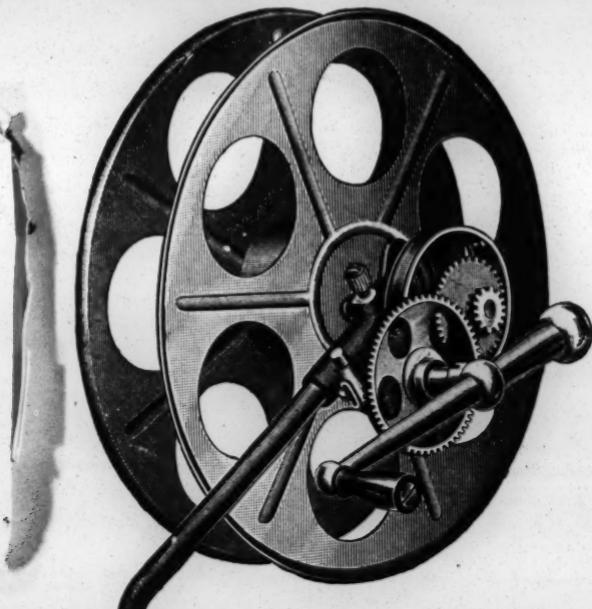
The No. 4 Take Up Attachment, with Compound Rewind

Reel Head instead of plain Reel Head..... 11.50

Note: The compound rewind is intended to be used on the upper reel arm, but where the Optigraph has been ordered with plain reel head and it is desired to add both "Take Up" and the "Compound Rewind" they may be ordered in combination, then the two reel heads may be interchanged, placing the Compound Rewind on the top a.m.

CHICAGO PROJECTING CO.

## The Compound Rewind Reel Head



### For the New **OPTIGRAPH No. 4** Model 1907

The object of this attachment is to furnish a convenient means of rewinding the films after they have been run through the machine. This attachment is patented and possesses two very great advantages over anything ever devised for a similar purpose. First, it has two speeds, one which gives three revolutions of the reel to one of the handle and is used for winding short films and for the first half of long films of 800 to 1,000 feet or more. The other speed gives one revolution of the reel to one of the handle and is used for the last half of the long films.

The second improvement is, that instead of using a short handle as is customary on other rewinds that form a part of a motion picture machine, the main crank handle from the body of the machine is used which prevents fatigue even where the machine is in constant use as in "continuous show" motion picture work.

The handle may be quickly attached and detached by pressing a catch bolt.

#### ....PRICE....

Compound Rewind Reel Head, without arm, or handle.....\$7.50

225 DEARBORN ST., CHICAGO, ILL.



The New  
**Optigraph**  
**No. 4**  
Model 1907  
Motion Picture  
Mechanism

Two United States  
patents. Others  
pending.

See Description., on  
Following Pages.

**PRICE**  
With Round Base,  
Reel, 3 in. Lens,  
etc. . . \$39.00

**PRICE**  
With Vise Grip  
Sliding Base, Reel,  
3 in. Lens, etc.  
\$42.50

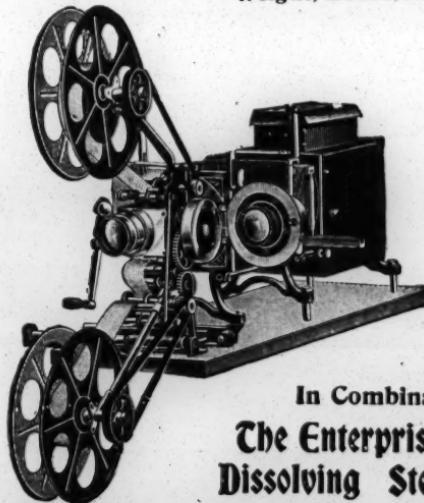
Above prices  
include 3 in. lens.  
Other lengths of  
focus extra. See  
list.

More Optigraphs sold than all other Mo-  
tion Picture Machines Combined

CHICAGO PROJECTING CO.

The New **Optigraph No. 4** Model  
1907  
**MOTION PICTURE MECHANISM AND VISE GRIP SLIDING BASE**

Weight, Net, About 41 lbs.  
Weight, Boxed, About 76 lbs.



In Combination with  
**The Enterprise Double  
Dissolving Stereopticon.**

A highly successful and economic arrangement for showing motion pictures and lantern views. With this combination, stereopticon views may be dissolved at will and but a moment is required to change to motion pictures.

With the single lantern in combination with the motion picture machine, lantern views may be quickly and artistically changed by the use of the rapid slide changer which accompanies the lantern.

The Base Boards listed below are 28 inches in length which is too long to be packed into our regular lantern carrying case. Where it is desired to carry it in the case the jointed board should be ordered in which case add \$1.00 to the price quoted with plain board.

. . . PRICES . . .

**Optigraph No. 4 Mechanism** with 3 inch lens, Sliding Base, Single Enterprise Lantern, extension legs for lantern, one pair condensing lenses, objective lens any focus from 6 to 12 inch inclusive, in  $\frac{3}{4}$  size mount, and slide carrier..... \$69.00

**Optigraph No. 4 Mechanism** with 3 inch lens, Sliding Base, double dissolving stereopticon, extension legs on lower lantern, two pair condensing lenses, objective lens any focus from 6 to 12 inches inclusive in  $\frac{3}{4}$  size mount, and two slide carriers..... 99.50

For motion picture lenses of longer focus than 3 inch, add 50 cents for  $3\frac{1}{2}$  and  $4\frac{1}{2}$  inch and \$1.00 for  $5\frac{1}{4}$  and 6 inch.

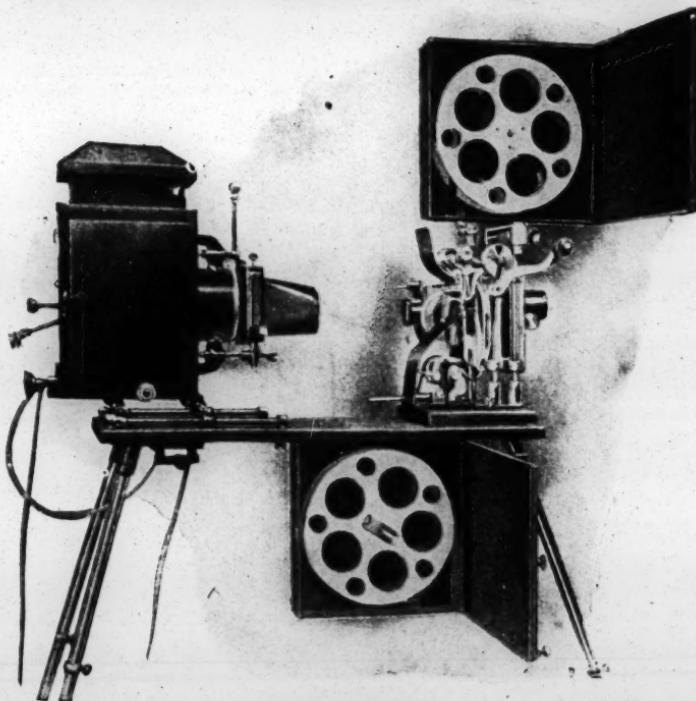
**Base Board**, as above, oak, finished and varnished..... 1.50

**Base Board**, in two parts, jointed with thumb bolts..... 2.50

The above prices do not include jets, dissolving key, take up device or base board. For description of Optigraph and lanterns see other pages.

225 DEARBORN ST., CHICAGO, ILL.

## Power's Cameragraph "New York Approved" Equipment



### EQUIPMENT.

Cameragraph Mechanism No. 5

Upper film magazine

Lower film magazine

Patented Take-up attachment on lower film magazine

Table Board with leg flanges  
nickel plated

New York approved Lamp House, complete, with mica lined top and sliding ways

Electric Lamp, complete

Adjustable Lamp shoe and post, with screw adjustment

Russia Iron Cone and adjustable slide carrier frame

Double slide carrier and condensers complete, with two lenses and bronze mount

First quality motion picture objective lens

First quality stereopticon objective lens, with adjustable stereopticon attachment

Double knife switch, with slate base

Set of asbestos covered wire connections for lamp and rheostat, solderless terminals

Underwriters' enclosed rheostat (non-adjustable) for 104 volts alternating current or 110 volts direct current

Style B, automatic fire shutter, upper and lower film shields

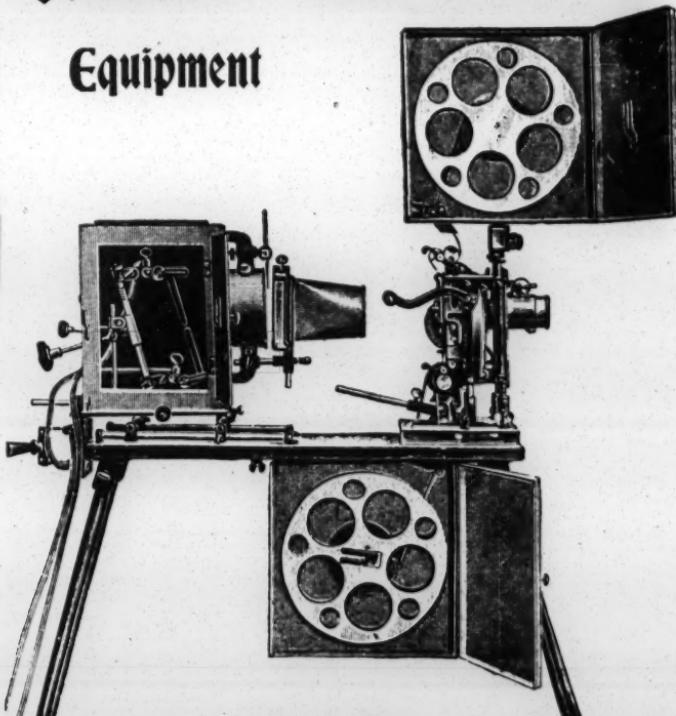
One reel hanger, with winding attachment for 10 inch reel

Two 10 inch reels

Price of Equipment as Above. \$195.00.

CHICAGO PROJECTING CO.

# Power's Cameragraph "Standard Underwriter's" Equipment



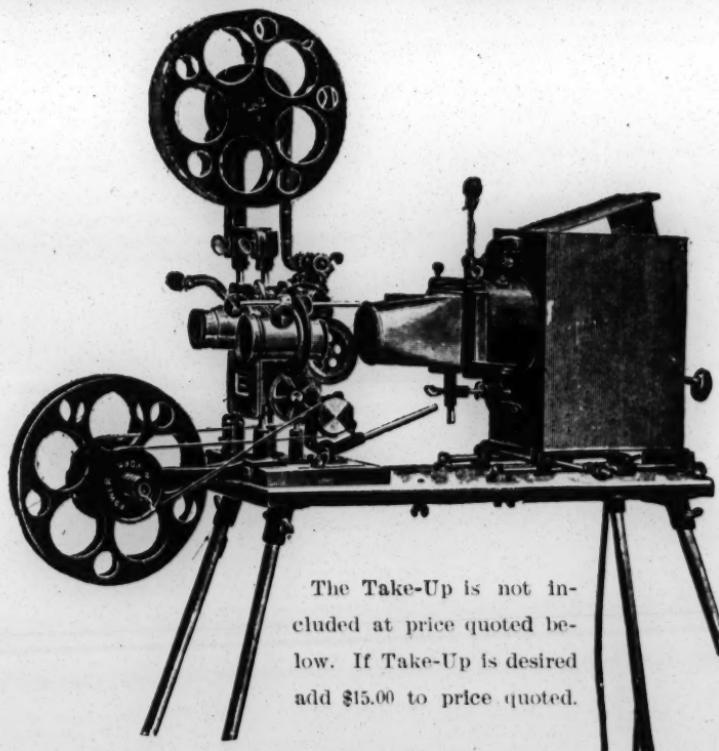
## EQUIPMENT.

- Cameragraph Mechanism No. 5
- Upper film magazine
- Lower film magazine
- Patented Take-up attachment on lower film magazine
- Table Board, with leg flanges
- Set of four telescoping tubular legs, nickel plated
- Regular Lamp House, complete, with sliding ways
- Electric lamp, complete
- Adjustable lamp shoe and post, with screw adjustment
- Russia Iron Cone and adjustable slide carrier frame
- Double slide carrier and condensers complete, with two lenses and bronze mount
- First quality motion picture objective lens
- First quality stereopticon objective lens, with adjustable stereopticon attachment
- Double knife switch, with slate base
- Set of asbestos covered wire connections for lamp and rheostat, with solderless terminals
- Underwriters' enclosed rheostat (non-adjustable) for 104 volts alternating current or 110 direct current
- Style A, automatic fire shutter, and upper film shield
- One reel hanger, with winding attachment for 10 inch reel
- Two 10 inch reels

**Price of Equipment as Above, \$185.00**

225 DEARBORN ST., CHICAGO, ILL.

## Power's Economic Cameragraph Equipment



The Take-Up is not included at price quoted below. If Take-Up is desired add \$15.00 to price quoted.

### EQUIPMENT

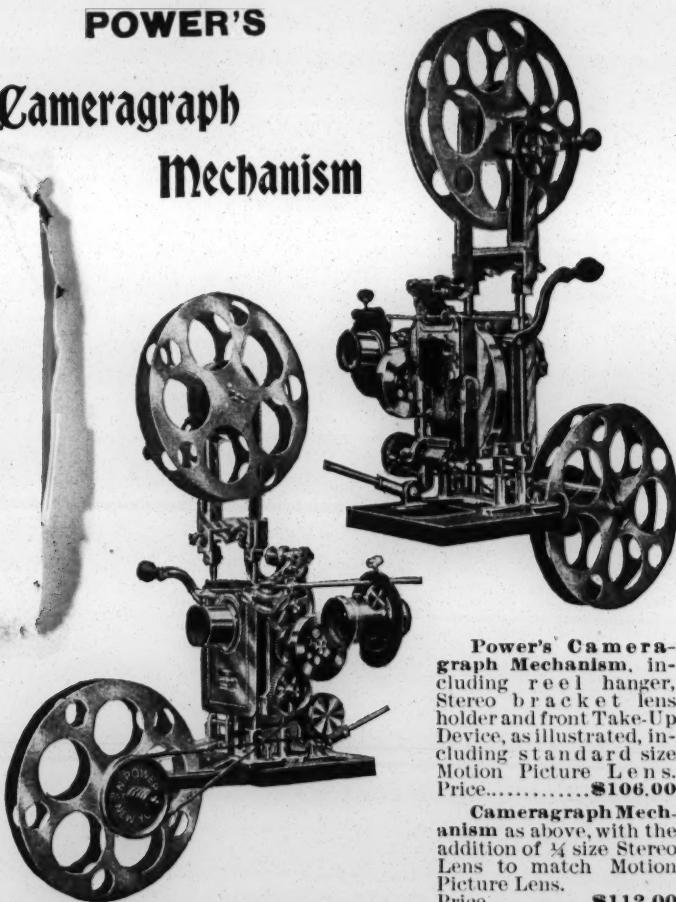
Hand Power Mechanism and Mov-  
Picture lens  
Stereopticon Attachment, including  
Objective lens  
Lamp House, with bracket mount-  
ings and improved douser  
Electric Hand Feed Lamp and ad-  
justable holder  
Rheostat for alternating and direct  
current  
Set of nickel plated steel adjustable  
Table Legs

Switch and Asbestos Wire Connec-  
tions, tipped with improved  
brass ends and lugs  
Russia Iron Cone and Slide Carrier  
Mounting, with Carrier  
Reel Hanger, with winding attach-  
ment and 10 inch reel  
Base Board, with mountings for  
Lamp House and Table Legs  
Condenser Mount and pair of 4 $\frac{1}{4}$   
inch diameter Condensers

**Price of Economic Equipment as Above, \$140.00.**

CHICAGO PROJECTING CO.

**POWER'S**  
**Cameragraph**  
**Mechanism**



**Power's Cameragraph Mechanism**, including reel hanger, Stereo bracket lens holder and front Take-Up Device, as illustrated, including standard size Motion Picture Lens.  
Price.....\$106.00

**Cameragraph Mechanism** as above, with the addition of  $\frac{3}{4}$  size Stereo Lens to match Motion Picture Lens.  
Price.....\$112.00

For **Cameragraph Mechanism** fitted with Power's Fireproof Magazines, Take-Up Device, and the above list of items, add for magazines and Take-Up Device.....\$35.00

**MISCELLANEOUS PARTS FOR POWER'S MOTION PICTURE MACHINE.**

**Automatic Fire Shutter, Style "A"**, for Power No. 5 Machine.  
Price.....\$8.00

**Automatic Fire Shutter, Style "B"**, known as the "Centrifugal" type, and supplied with the "New York Approved" Equipment, including both lower and upper film shields. Price.....\$12.00

**Power Rheostat, Style "G"**, Adjustable. Price.....\$10.00

**Power Rheostat, Style "H"**, Underwriters' Adjustable, with perforated metal jacket. Price.....\$12.00

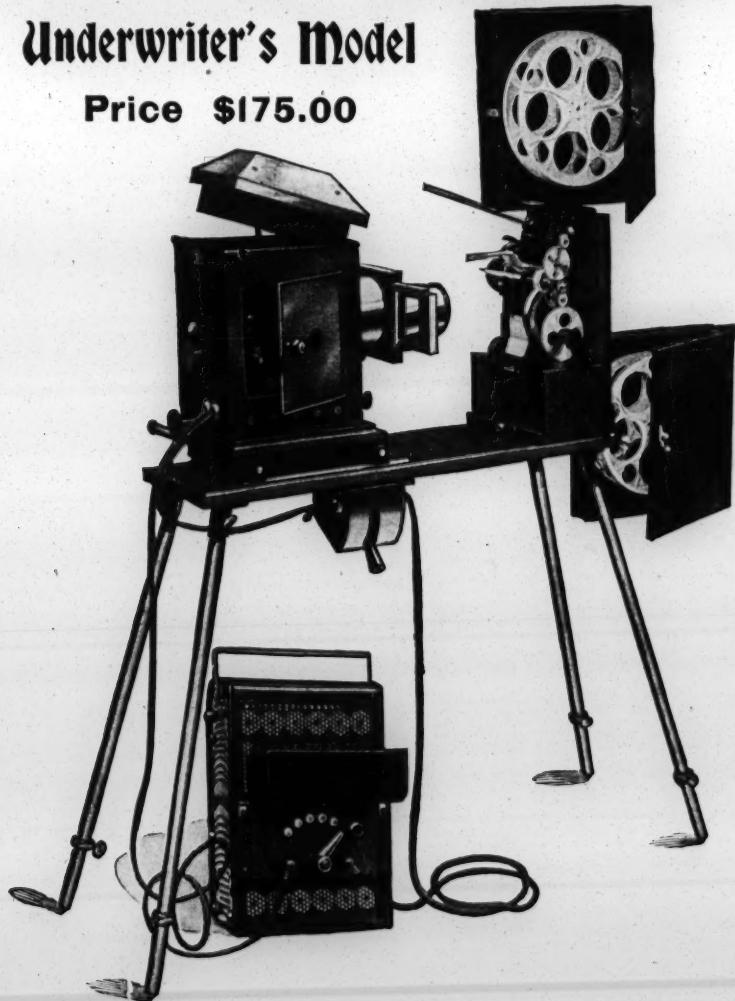
**Power Rheostat, Style "I"**, Adjustable, circular form. Price.....\$20.00

**Power Rheostat, Style "J"**, Circular form. Price.....\$30.00

225 DEARBORN ST., CHICAGO, ILL.

**EDISON**  
**Projecting Kinetoscope**  
**Underwriter's Model**

Price \$175.00



For List of Articles in this Equipment See Following Page.

CHICAGO PROJECTING CO.

# Edison Projecting Kinetoscope Underwriter's Model

## EQUIPMENT.

- |                                 |                                   |
|---------------------------------|-----------------------------------|
| 1 Hand Power Mechanism in Quar- | 15 Improved Russia Iron Cone and  |
| tered Oak Cabinet               | Slide Carrier Frame               |
| 2 Automatic Shutter             | 16 Double Slide Carrier           |
| 3 Improved Star Wheel           | 17 Condensing Lens                |
| 4 Improved Balance Wheel        | 18 No. 2 Motion Picture Objective |
| 5 Upper Film Magazine           | Lens                              |
| 6 Lower Film Magazine           | 19 No. 2A Stereopticon Objective  |
| 7 Two 10 inch Reels             | Lens with Stereopticon Attach-    |
| 8 Improved Take-up Attachment   | ment                              |
| 9 Improved Film Rewinding At-   | 20 Improved Double Pole Knife     |
| tachment                        | Switch and Russia Iron Switch     |
| 10 Improved Crank               | Cover                             |
| 11 Base Board, with Flanges and | 21 Asbestos Covered Connecting    |
| nickel plated adjustable Legs   | Cords, with Patent Terminals      |
| 12 Improved Russia Iron Lamp    | from Lamp to Rheostat and         |
| House, with Improved Slid-      | Switch                            |
| ing Base                        | 22 Improved Coil Type Adjustable  |
| 13 Improved Arc Lamp            | Rheostat for 52 or 104 volts      |
| 14 Eccentric Holder for Calcium | alternating current, or 110-120   |
| Burner                          | volts direct current              |

Net weight, complete, 105 lbs.; gross weight, 180 lbs. Dimensions, set up ready for operation: length, 3 feet 8 inches; width, 16 inches; height, 28 inches; Dimensions of packing case: 55 x 14 x 22 ins.

**Cat. No. 18000 Underwriter's Model.** Complete. Code YESAR  
Price.....\$175.00

**Cat. No. 18001 Underwriters' Model,** with Calcium Burner, without electric light attachments. (Articles Nos. 13, 20, 21 and 22). Code YESAWAL. Price.....\$165.00

**Cat. No. 18002 Underwriters' Model,** without adjustable legs and flanges. Code YESCA. Price.....\$165.00

**Cat. No. 18003 Underwriters' Model,** with calcium burner. Without electric light attachments (Articles Nos. 13, 20, 21 and 22). Adjustable legs and flanges. Code YESTEREVE. Price.....\$155.00

## MECHANISM ONLY

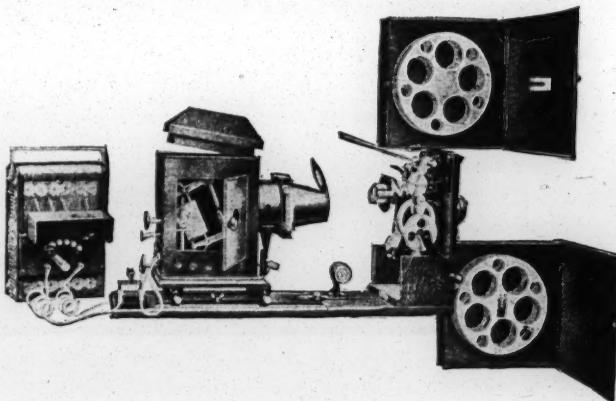
### EQUIPMENT.

- |                               |                                     |
|-------------------------------|-------------------------------------|
| Hand Power Mechanism in Quar- | Improved Take-up Attachment         |
| tered Oak Cabinet             | Two 10 inch Reels                   |
| Automatic Shutter             | No. 2 Motion Picture Objective Lens |
| Upper Film Magazine           | No. 2A Stereopticon Objective Lens, |
| Lower Film Magazine           | with Stereopticon Attachment        |

**Cat. No. 18010 Underwriters' Model Mechanism.** Code YESTERFANG.....\$125.00

225 DEARBORN ST., CHICAGO, ILL.

## Edison Projecting Kinetoscope Improved Exhibition Model



### EQUIPMENT.

- |   |  |
|---|--|
| 1 Hand Power Mechanism in Quartered Oak Cabinet               | 14 Improved Russia Iron Cone and Slide Carrier Frame   |
| 2 Improved Star Wheel   | 15 Double Slide Carrier  |
| 3 Improved Balance Wheel                                      | 16 Condensing Lens   |
| 4 Upper Film Magazine   | 17 No. 2 Motion Picture Objective Lens   |
| 5 Lower Film Magazine   | 18 No. 2 A Stereopticon Objective Lens, with Stereopticon Attachment   |
| 6 Two 10 inch Reels   | 19 Improved Double Pole Knife Switch   |
| 7 Improved Take-up Attachment                                 | 20 Asbestos covered Connecting Cords with Patent Terminals from Lamp to Rheostat and Switch                        |
| 8 Improved Film Re-winding Attachment                         | 21 Improved Coil Type Adjustable Rheostat for 52 or 104 Volts Alternating Current, or 110-120 Volts Direct Current |
| 9 Improved Crank  |  |
| 10 Base Board   |  |
| 11 Improved Russia Iron Lamp House with Improved Sliding Base |  |
| 12 Improved Arc Lamp  |  |
| 13 Eccentric Holder for Calcium Burner                        |  |

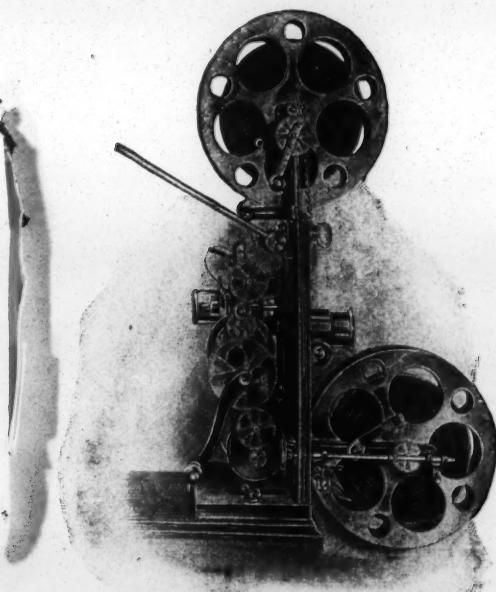
Net weight, complete, 95 lbs; gross weight, 175 lbs. Dimensions, set up ready for operation: Length, 3 feet 8 inches; width, 16 inches; height, 28 inches. Dimensions of packing case: 55 x 14 x 22 inches.

**Cat. No. 1704 Improved Exhibition Model**, complete. Code SPURTIEGEL. Price..... \$155.00

**Cat. No. 1705 Improved Exhibition Model**, with Calcium Burner without electric light attachments (Articles Nos. 12, 19, 20 and 21). Code SPURTLED. Price..... \$145.00

CHICAGO PROJECTING CO.

# Exhibition Mechanism Only



## Mechanism Edison Exhibition Kinetoscope.

### EQUIPMENT.

Hand Power Mechanism in Quar-	Two 10 inch Reels
tered Oak Cabinet	No. 2 Motion Picture Objective
Upper Film Magazine	Lens
Lower Film Magazine	No. 2A Stereopticon Objective Lens,
Improved Take-up Attachment	with Stereopticon Attachment

**Cat. No. 17011 Exhibition Mechanism, Improved Take-up and Film Magazines, Code SPURTLING. Price.....\$115.00**

**Exhibition Mechanism, as listed above. Price.....\$85.00**

**Exhibition Mechanism, with Motion Picture Lens, but without Stereopticon lens, magazines and take-up. Price..... 70.00**

**Exhibition Mechanism, without either lens or take-up. Price.. 63.75**

225 DEARBORN ST., CHICAGO, ILL.

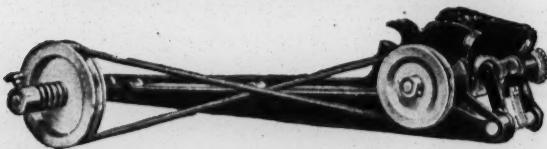
# FILM MAGAZINES



**Cat. No. 18280 Upper Film Magazine Code YEMARAS.**  
Price.....\$10.00

**Cat. No. 18390 Lower Film Magazine Code YERMARIALS.**  
Price.....\$10.00

## Improved Take-Up Attachment.



**Can be Attached to all 1906 Model Exhibition Mechanisms.**

**Cat. No. 18315 Improved Take-Up Attachment. Code YEMARON.**  
Price.....\$15.00

## Automatic Shutter.

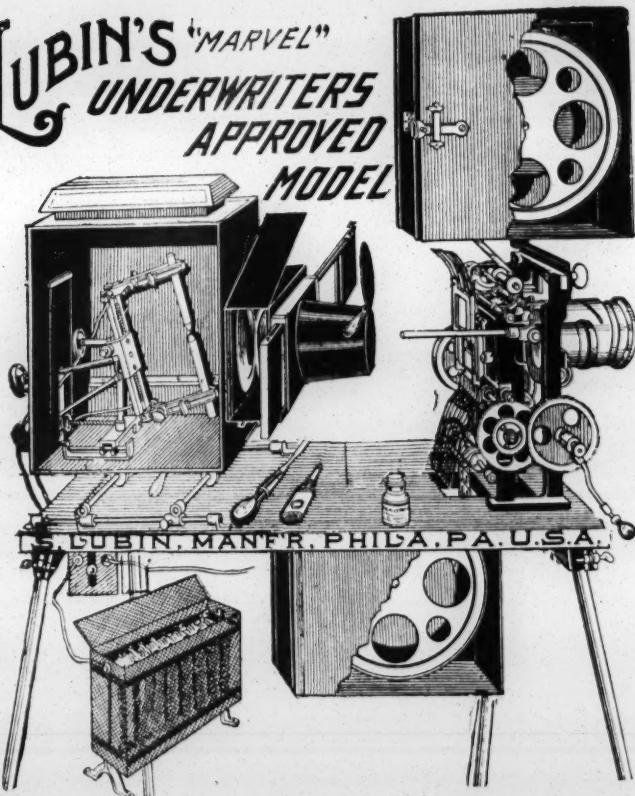
A simple device which shuts off the light when the film is at rest and prevents the light being thrown upon the film except when the film is in full motion. The Automatic Shutter is furnished with the Underwriters' Model Machine, but can be attached to the Improved Exhibition Model Machine as well as to any 1906 Model Exhibition Mechanism.

**Cat. No. 18190 Automatic Shutter, complete. Code YESON.**

Price.....\$15.00

CHICAGO PROJECTING CO.

LUBIN'S "MARVEL"  
UNDERWRITERS  
APPROVED  
MODEL



## Motion Picture Machine Equipment

with improved Fire Magazines, Automatic Fire Shutter and Automatic Fire Shield (Lubin's Patent) Asbestos Covered Wire Connections, new Improved Lamp-House, new style Fireproof Rheostat, improved Electric Lamp.

### PRICES.

**Lubin's "Marvel" Motion Picture Machine**, complete with everything seen in the cut above, including polished carrying case for mechanism..... \$135.00

**Lubin's "Marvel" Motion Picture Machine**, complete as above except that it has adjustable telescopic steel legs..... \$145.00

## Motion Picture Objective Lenses.

The Motion Picture Objective serves the same purpose for the motion picture machine as the stereopticon lens does for the stereopticon, and is constructed after the same general plan, but owing to the fact that the enlargement for motion pictures must be many times greater than for stereopticon pictures, the requirements are proportionately more exacting. The picture of a motion picture film measures a little less than  $\frac{1}{4}$  of an inch by 1 inch, while the picture portion of a lantern slide view is a little less than  $2\frac{1}{4}$  by 3 inches. From this it will be seen that the magnifying power of the motion picture lens must be three times greater to produce the same size picture on the screen, and it naturally follows that in order to secure satisfactory results the lens must be made with the greatest possible degree of accuracy, in order to secure sharp detail, and depth of focus, both of which are absolutely necessary to the production of good pictures.

In our "Roco Special" Motion Picture Lens we have endeavored to leave nothing undone that would contribute to the best results. The lens has been designed by an expert in this line; one who has devoted himself to this line of work ever since the introduction of motion pictures. Every stage of the manufacture is conducted by the most thorough mechanics who have had long experience in this line of work, and from the lens glasses to the mountings every piece and part represents the best in both material and workmanship.

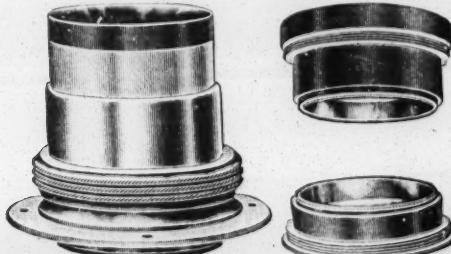
In the planning of this new line of Motion Picture lenses, our action has been the same as on our new line of stereopticon lenses; viz., a radical departure from the old system of measurements, and the adoption of a new system that is suited to the requirements and in keeping with the rapid progress in this line of work. Instead of giving them numbers, or names which means nothing, we have designated each lens by its equivalent focus in inches, which means the distance between the motion picture film and a point between the two sets of lens glasses at which the light rays cross, this point being usually a little in front of the dividing line between the two lens cells. The following table gives the approximate size of picture projected by the different lenses at varying distances from the screen. The upper figures represent the height of the picture on the screen, while the lower figures represent the width. The figures in the left hand column represent the focal length of the Motion Picture lenses, while the figures in the right hand column represent the focal length of the stereopticon lens best adapted to match the motion picture lenses in the respective horizontal columns:

E. F. feet	20 feet	30 feet	40 feet	50 feet	60 feet	70 feet	80 feet	90 feet	100 feet	110 feet	120 feet	E. F. feet
	SIZE OF PICTURE											
3	$4\frac{1}{2}$ $6\frac{1}{4}$	8 11	$8\frac{3}{4}$ $12\frac{1}{4}$	$11\frac{1}{2}$ $15\frac{1}{2}$	$13\frac{1}{4}$ $18\frac{1}{4}$	$15\frac{1}{4}$ 21	$17\frac{1}{4}$ 25	$20\frac{1}{4}$ 27	$22\frac{1}{4}$ $31\frac{1}{4}$	$26$ $34\frac{1}{2}$	$28\frac{1}{4}$ $37\frac{1}{2}$	10
$3\frac{1}{2}$	4 $5\frac{1}{2}$	$5\frac{1}{2}$ 8	$7\frac{1}{2}$ $10\frac{1}{4}$	$9\frac{1}{4}$ $13\frac{1}{4}$	$11\frac{1}{2}$ 16	$13\frac{1}{4}$ $18\frac{1}{4}$	$15\frac{1}{4}$ $21\frac{1}{4}$	$16\frac{1}{2}$ $24\frac{1}{4}$	$19\frac{1}{2}$ $26\frac{1}{4}$	$22\frac{1}{2}$ $30\frac{1}{4}$	$23\frac{1}{4}$ 32	12
$4\frac{1}{3}$	....	5 $6\frac{1}{2}$	$6\frac{1}{2}$ $8\frac{1}{4}$	$9\frac{1}{4}$ 11	10 $13\frac{1}{4}$	$11\frac{1}{2}$ $15\frac{1}{2}$	13 $17\frac{1}{2}$	$14\frac{1}{4}$ $19\frac{1}{2}$	16 $21\frac{1}{2}$	$17\frac{1}{2}$ $23\frac{1}{2}$	$19\frac{1}{2}$ 26	15
$5\frac{1}{4}$	....	....	$5\frac{1}{2}$ 7	$6\frac{1}{4}$ 9	8 $10\frac{1}{4}$	$9\frac{1}{4}$ $12\frac{1}{4}$	$11\frac{1}{4}$ $14\frac{1}{4}$	$12\frac{1}{4}$ $16\frac{1}{4}$	$13\frac{1}{4}$ 18	$14\frac{1}{4}$ $19\frac{1}{2}$	$16\frac{1}{4}$ $21\frac{1}{2}$	18
6	....	....	....	$5\frac{1}{4}$ $7\frac{1}{4}$	7 $9\frac{1}{4}$	8 $10\frac{1}{4}$	$9\frac{1}{4}$ $12\frac{1}{4}$	$10\frac{1}{4}$ $13\frac{1}{4}$	$11\frac{1}{2}$ $15\frac{1}{2}$	$12\frac{1}{4}$ 17	$13\frac{1}{4}$ $18\frac{1}{4}$	21

## CHICAGO PROJECTING CO.

**Our Way of matching Motion Pictures with Stereopticon views** is shown in the diagram herewith. The solid line represents the margin of the Motion Picture view, while the dotted line represents the margin of the Stereopticon view. These proportions result in a harmonious and pleasing effect that is entirely absent in any other arrangement. Some dealers and exhibitors match to the sides and disregard the top and bottom. Our table of comparative sizes has been calculated on the proportions shown in the diagram and unless otherwise instructed we will fill orders accordingly.

**A Special Feature of the "Roe Special" Motion Picture lens** and one of very great convenience and economy, is the interchangeable lens cells, by the use of which it is unnecessary to have anything more than one mount. By purchasing additional pairs of lens cells for the various foci, they may be interchanged in the lens mount to produce the sized picture desired. When using lenses of longer focus it is necessary to extend the lens mount further from the body of the machine, and for this purpose we provide what we call extension collars, each of which is designated by the length of focus of the lens.



exposed to accidents in transportation. The spiral focusing device is in keeping with the progress demanded in this line. It is artistic in design, and provided with the finest adjustment for focusing. The lens barrel and focusing ring are nickel-plated; the lens cells are enameled in black; the lens body is finished in Egyptian bronze lacquer. The combination makes a very pretty and harmonious contrast.

### PRICES

The "Roe Special" Motion Picture lens, 3 inch focus, each....\$8.00  
The "Roe Special" Motion Picture lens, 3½ or 4½ inch focus including extension collar (except for the 3-inch), each.....\$8.50

The "Roe Special" Motion Picture lens, 5½, 6, 7 and 8-inch focus, with extension collar.....\$9.00

**Lens Cells** for the "Roe Special" Motion Picture Machine, 3-inch focus, front and rear, per pair.....\$5.50

**Lens Cells** for the "Roe Special" Motion Picture Machine, 3½ or 4½ inch focus, front and rear, including extension collar, per pair,...\$6.00

**Lens Cells** for the "Roe Special" Motion Picture lens, 5½, 6, 7 and 8-inch focus, including extension collar, per pair.....\$6.50

The 3-inch lens requires no extension collar; all of the others do.

**IMPORTANT.**—When ordering be sure to state if wanted for the Motigraph, Optigraph or what other Motion Picture Machine.

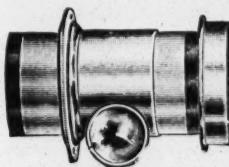
225 DEARBORN ST., CHICAGO, ILL.

## Extra Wide Angle Lenses

Will be Furnished When Desired.

Prices and particulars on application.

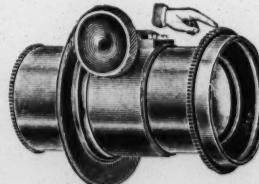
**Bausch & Lomb Motion Picture Lens.** These lenses are made by the Bausch & Lomb Optical Co., are well finished in every respect and will fill all requirements for motion picture work. These are furnished in 3 and 4-inch equivalent focus only.



### PRICES

Bausch & Lomb Motion Picture Objective Lens, 3-inch equivalent focus.....	\$8.00
Bausch & Lomb Motion Picture Objective Lens, 4-inch equivalent focus.....	\$8.00
Extension collar, extra.....	1.00
Lens Glasses, for Motion Picture Lenses, to replace broken parts, each.....	\$2.50

**The Adjustable Motion Picture Lens,** suitable for any make or style of motion picture machine. The object of this lens is to enable the operator to project any size picture he desires, within certain limits, without changing the distance between the instrument and the screen. The focus is obtained by turning the milled thumb nut, the same as with any other lens, while the size of the picture is increased or decreased by turning the front flange of the objective, as indicated by the hand. It is not necessary to re-focus after changing the size of the picture.



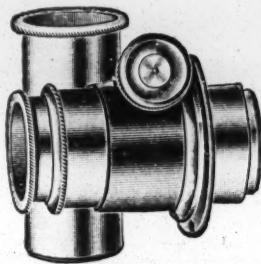
The following table will show the possibilities with the adjustable objective

At 20 feet distance, any size picture between 4 and 7 feet					
" 30 "	"	"	"	"	6 " 10 "
" 40 "	"	"	"	"	8 " 14 "
" 50 "	"	"	"	"	10 " 17 "
" 60 "	"	"	"	"	12 " 20 "
" 80 "	"	"	"	"	16 " 26 "

Price of the Adjustable Motion Picture Objective Lens.....\$20.00

**Note:** Price of this objective fitted to the Motigraph Optigraph will be quoted on application.

CHICAGO PROJECTING CO.



**The Interchangeable Jacket and Slip**

**Tube Motion Picture Lens** is a desirable arrangement for the traveling exhibitor who wishes to make quick changes of lenses when working at different distances from the screen. The lens glasses are mounted in a slip tube which is held in place in a jacket by spring pressure from the sides of the jacket sleeves.

**PRICES.**

<b>Jacket, without slip tube.....</b>	<b>\$ 5.50</b>
<b>Slip Tube of 2½ inch focus.....</b>	<b>10.00</b>
<b>Slip Tube of 3 and 3½ inch focus.....</b>	<b>9.00</b>
<b>Slip Tube of 4 to 8 inch focus.....</b>	<b>7.00</b>
<b>Slip Tube of 9 or 10 inch focus.....</b>	<b>7.00</b>

## The Gundlach-Manhattan EXTRA LUMINOUS Interchangeable Jacket and Tube

**Motion Picture Lens** has been designed with a view to increasing the available amount of illumination to the maximum. To accomplish this object it is necessary to make the glasses larger so as to allow a greater amount of light to pass, and this in turn has made it necessary to put very much more labor on the polishing and correcting of the lenses in order to give a sharp focus. The principle involved is practically the same as in the making of Anistigmatic Lenses for Photographic work. Pictures projected with this lens stand out clear, bold and sharp and are noticeably different from pictures projected by the lenses of ordinary quality. The lenses are mounted in tubes which are held in place in the machine by a jacket that contains a friction sleeve. To change the size of picture it is necessary only to remove the lens tube and replace it with another of a different focus. Both jacket and tubes are well finished and nickel plated.

**PRICES**

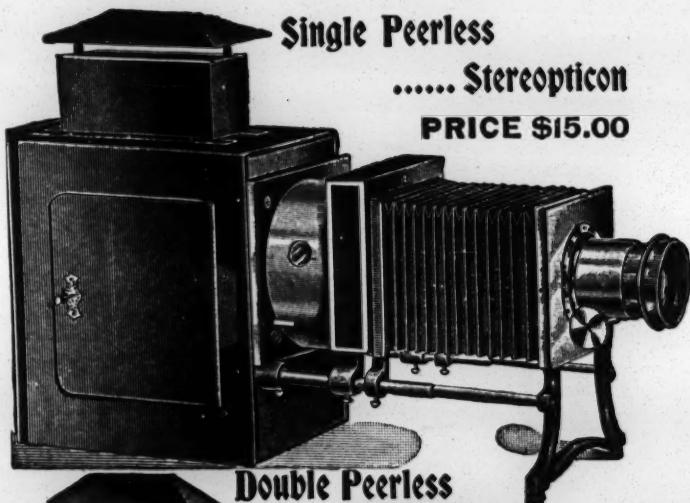
<b>Gundlach-Manhattan Jacket.....</b>	<b>\$ 4.00</b>
<b>Gundlach-Manhattan Lens Tubes, fitted with Extra Luminous Lenses in 2 to 6-inch foci, in ¼ inches, each.....</b>	<b>14.00</b>
Different lengths of foci from the above will have to be made to order at an additional cost of.....	2.50
About two weeks' time will be required on special sizes.	
<b>If further particulars</b> are desired send for Special Circular.	

225 DEARBORN ST., CHICAGO, ILL.

**Single Peerless**

..... Stereopticon

**PRICE \$15.00**

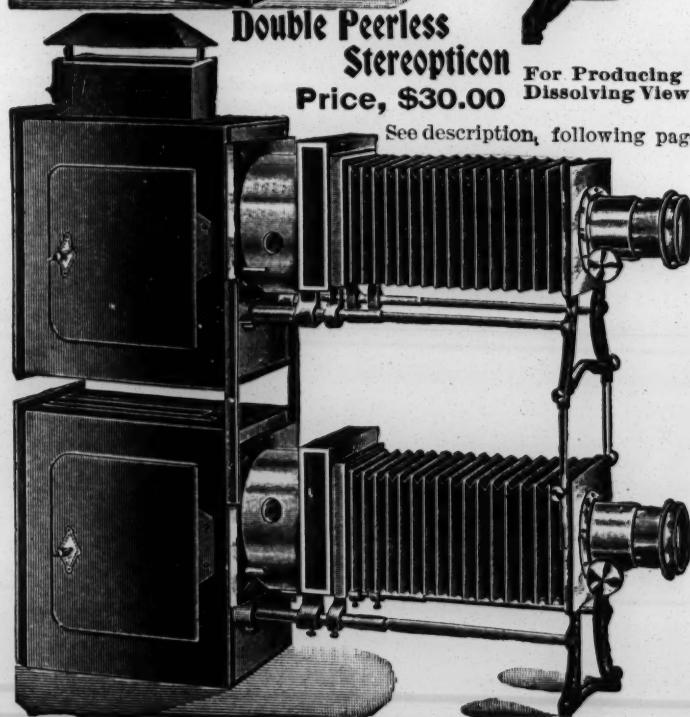


**Double Peerless**

Stereopticon

**Price, \$30.00** For Producing  
Dissolving Views

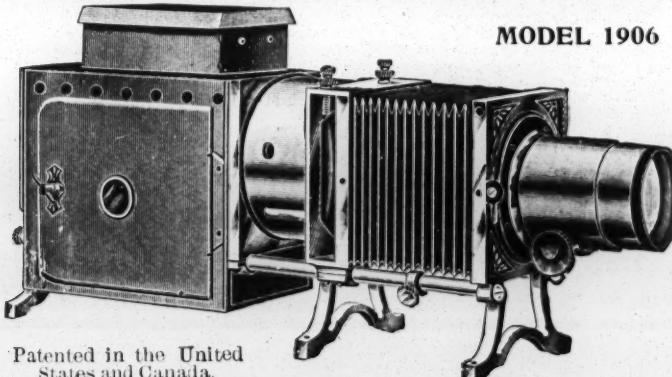
See description following page



CHICAGO PROJECTING CO.

# The Enterprise Single Stereopticon

Is Used in our Special Exhibition Outfits and is the  
ACKNOWLEDGED LEADER IN OPTICAL LANTERNS.

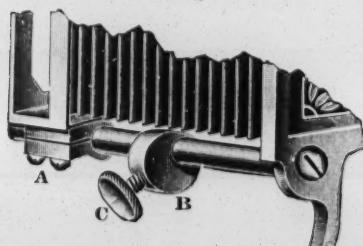


Patented in the United  
States and Canada.

The above view shows the Objective Lens Door closed and in position to show  
Stereopticon Views.

**THE "ENTERPRISE"** has all the adjustments required for high class stereopticon work, is equipped with the latest improvements, possesses many important advantages over others, is the most artistic in design, the best finished and absolutely the best Stereopticon on the market, a fact that is amply evidenced by the sales, which we believe are greater than of all other stereopticons combined, and it is sold for less money than other instruments of far less value.

**Foremost Among the Advantages** to be found in this instrument and in no other, is the "Patented Objective Lens Door," which especially adapts the "Enterprise" lantern to use in combination with a Motion Picture Machine, and is of great additional advantage in that it affords a quick means of attaching or detaching the lens, and for examination of or cleaning the lenses.



system of clamps which insures the perfect working and adjustment of all the parts.

**The New Vise Grip Clamps** for the telescope tubes and rods are infallible in firmly securing the fixed and movable parts and constitute a valuable and important improvement for 1906. Operators who have experienced the perplexing difficulty of having the fixed parts slip out of place, or the adjustments stick fast when attempting to set up their instruments will appreciate the merit of our new

225 DEARBORN ST., CHICAGO, ILL.

Both of these valuable features are illustrated in the cut on the preceding page which shows a partial view of the side of the Stereopticon. The clamp "A" shown in the rear of the cut shows the method of securing the main frame in place on the telescope tubes. The casting is slotted with a saw and drawn together round the tube by two screws which hold it as firmly as if in a vise and yet it does not in any way cramp or interfere with the easy and perfect working of the rods in the tubes which is the case with lanterns so constructed that the clamping screws press directly against the tubes.



**The New Pin Button** lens door latch illustrated herewith marks another important 1906 improvement. The new latch is attached to the frame of the Stereopticon instead of to the door as in the last years model and is the means of furnishing a perfectly rigid and always dependable means of holding the door in a closed position.

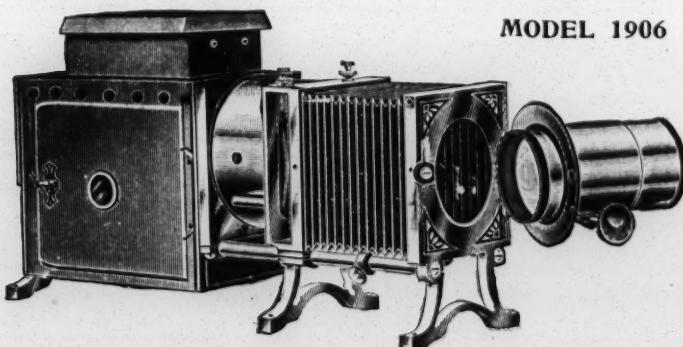
**When Motion Pictures** are to be combined with Stereopticon views, the "Enterprise" will be found invaluable owing to its special adaptation to this class of work. The "Sliding Attachment" or "Sliding Base" for the Motion Picture Machine may be attached at any time by means of screws. By the addition of the Motion Picture Machine in this manner, the change from stereopticon views to motion pictures and vice versa may be made almost instantly.

**The Universal Lamp House** affords a great advantage to the traveling exhibitor in that it is large and roomy, and any form of illumination may be used by simply changing the burner. It is made of the best grade of planished steel and is well ventilated.

**Dissolving Views**, which constitute the highest art in Stereopticon Projection work, may be produced with the most perfect results by adding at any time the upper "Enterprise" Stereopticon as listed and further described on the following page.

**Objective Lenses** of any kind may be used on the "Enterprise" Stereopticon and the bellows are of sufficiently long draw to accomo-

**MODEL 1906**



The above view shows the Objective Lens Door open to make room for the Motion Picture Machine,

date them. Unless otherwise instructed we will furnish lens door with opening to accommodate the largest size lens ordered, in which case adapting or reducing rings as listed on another page will be required for the use of lenses of smaller barrel.

## CHICAGO PROJECTING CO.

**The Eccentric Collar at "B"** is attached to the front end of the telescopic tubes and with the thumb screw "C" affords a rigid and dependable means of clamping the telescopic rods in the tubes to maintain the proper bellows extension.

**The Condensing Lenses** are of the best quality, are  $4\frac{1}{2}$  inches in diameter and are mounted in nickel plated telescopic mounts of such construction as insures the maximum of utility and convenience.

**Adjustments and Finish.** The rough adjustment for focus is accomplished by the extension of the flexible bellows and the telescopic rods sliding within the frame tubes. The slide changer is held in place by two springs and two top adjusting screws which are secured in adjustment by check nuts. All parts are made interchangeable and duplicates may be had at any time. All metal parts except the lamp house are polished and nickel plated and the combination with the dark red bellows and the dark lamp house makes a pretty and harmonious contrast.

### ....PRICES....

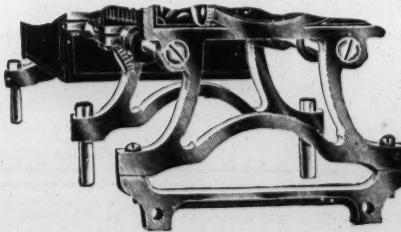
**The Enterprise Single Stereopticon**, lower or upper, with condensing lenses, "Petite Jr." objective lens of 6, 8, 10 or  $12\frac{1}{2}$  inch focus in one-fourth size mounts and one double slide carrier **\$25.00**

**The Enterprise Single Stereopticon**, lower or upper, with condensing lenses, "Roco Special Sr." objective lens of 10 inch focus in one-half size mount, as shown in the illustration and one double slide carrier..... **\$32.50**

When desired with other lenses than the above the difference in the prices of the lenses may be added or deducted.

With the upper Stereopticon is included the fork and two side arms for attaching to the lower Stereopticon.

### For Carrying Cases See the Index.



by hexagon nuts. They raise the height of the lantern about one inch. Truss and four extension legs polished and nickel plated per set... **\$1.50**

### Finds it a Very Profitable Business.

BOSCOBELL, WIS., NOV. 19.

CHICAGO PROJECTING CO., Chicago, Ill.

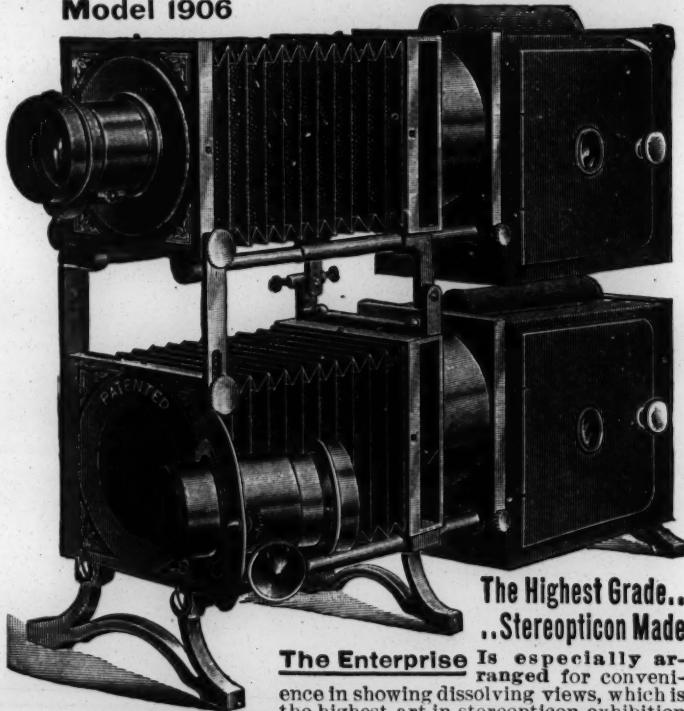
GENTLEMEN—Have been using your combination moving picture and calcium gas machine for the past year and must say that I am meeting with grand success. By adding to my outfit now and then I am now in a position to give a high class entertainment and find the secret of my success in using my advertising matter liberally. I know of no business where the profits are so large and the returns so quick, as this.

Yours for success,

W. W. B.

225 DEARBORN ST., CHICAGO, ILL.

**THE ENTERPRISE...  
....DOUBLE** Dissolving Stereopticon  
Model 1906



The Highest Grade..  
..Stereopticon Made

**The Enterprise** Is especially ar-  
ranged for conveni-  
ence in showing dissolving views, which is

the highest art in stereopticon exhibition work. For the benefit of those who are not familiar with stereopticon work we will explain that dissolving effects are produced by having two different views, one in each stereopticon, and gradually turn the illumination from one stereopticon to the other, so that while one view gradually fades away, the other grows brighter, until the one picture is not visible on the screen, and the other has developed to full brilliancy. In this manner the screen on which the pictures are shown is never blank, but shows a picture throughout the entire exhibition.

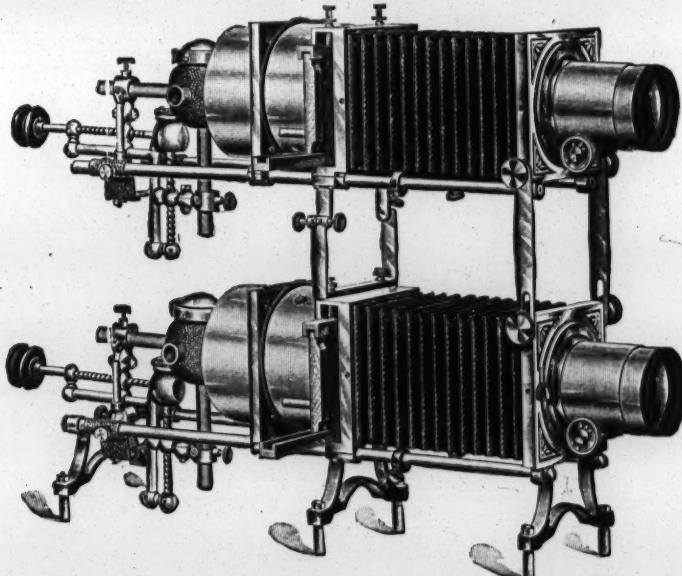
For Carrying Cases, see the Index.

**The Enterprise Double Stereopticon** is composed of two single stereopticons, the same as described on the preceding page, except that the upper one is made somewhat different so as to be attached to the lower one and is not provided with a swinging objective lens door. The lower stereopticon is adapted for the attachment of the Optigraph Motion Picture Machine which may be added at any time.

**Enterprise Double Stereopticon**, with condensing lenses, "Petite Sr." objective lenses of 6, 8, 10 or 12 inch focus in one-fourth size mounts, and double slide carriers..... \$50.00  
**Enterprise Double Stereopticon**, with condensing lenses, "Roco Special Sr." objective lenses of 10 inch focus in one-half size mounts, and double slide carriers..... \$65.00

CHICAGO PROJECTING CO.

## Enterprise Skeleton Dissolving Stereopticon



The Enterprise Skeleton Stereopticon has been designed especially for use with the "A. C. R." Right Angle Arc Lamp, in combination with which it possesses many advantages, viz:-it may be used without lamphouse; it is convenient to manipulate; is neat in design; and is light, compact and portable.

As the Enterprise Skeleton Lantern is the same as our standard Enterprise Lantern with the exception that the light hood is substituted for the lamp house, it can be used for the calcium or other forms of arc lamp at any time, by removing the hood and attaching the regular lamp house. The lamphouse, however, is not included in the prices below, but is charged for extra, if desired.

For description of "A. C. R." Right Angle Lamp see another page.

The Enterprise Skeleton Stereopticon is full nickel plated and polished, has red leatherette bellows, and is well finished in every particular. The Arc Lamp is also full nickel plated.

### PRICES

<b>Enterprise Skeleton Stereopticon, Single, lower or upper, with condensing lenses, "Petite Jr."</b>	<b>Objective lens of 6, 8, 10 or 12 inch focus in <math>\frac{1}{4}</math> size mounts, one "A. C. R." Right Angle Arc Lamp, one double slide carrier, and six extension legs.....</b>	<b>\$32.50</b>
<b>Enterprise Skeleton Stereopticon, Double, including lower and upper, with two sets of condensing lenses, two "Petite Jr."</b>	<b>Objective Lenses of 6, 8, 10 or 12 inch focus in <math>\frac{1}{4}</math> size mounts, two double slide carriers, and six extension legs....</b>	<b>\$65.00</b>
<b>For "Roe Special Sr."</b>	<b>Objective Lenses of 10 inch focus in <math>\frac{1}{2}</math> size mounts, as shown in illustration, add, each.....</b>	<b>\$7.50</b>
	<b>When desired with other lenses add the difference in price.</b>	

The above prices do not include Mechanical Dissolver, Rheostat, wire and switch, which if desired will be extra.

## Objective Lenses for the Stereopticon.

The Stereopticon Objective is composed of a series of glasses of proper refractive power and curvature, set in a brass tube mounting, and is located on the front of the Lantern or Stereopticon, for the purpose of projecting the picture to the screen by means of the light rays, which have been gathered and concentrated by the condensing lenses.

In principle the Stereopticon Objective is the same as the photographic lens, and the work it does is the same, only that in projection work, the conditions are reversed, the image originating in the stereopticon, and being projected out of it to the screen. The name Objective, is derived from "Object Glass," a name applied to photographic lenses many years ago.

In a good stereopticon objective there are several indispensable requirements, namely, sharply defined detail in the pictures, called definition, and depth of focus, the result of which is sometimes called flatness of field. The definition depends,

First, on the correctness of the scientific formula (or plan) of the lenses, that is the relationship of the curves of the several elements of glass one to the other.

Second, The selection of glasses of the proper refractive power.

Third, on the degree of perfection to which the workmen have followed the formula. Fourth, on the perfection of the polishing, and fifth, on the care used in mounting them.

By depth of focus, is meant the arrangement necessary to overcome the tendency on the part of a lens to focus sharply at a given point, which does not allow sufficient latitude to overcome the spherical plane of focus. A lens which has insufficient depth of focus, will project a picture which may possess sharp detail in the middle, while around the edges it will be indistinct, or vice versa, depending upon the adjustment. A lens with sufficient depth of focus, will project a picture possessing equally good detail both at the edges and the center. To have sufficient depth of focus, a lens must be made after the proper formula, and be well finished.

Stereopticon Objective lenses have always been styled as  $\frac{1}{4}$ ,  $\frac{3}{4}$ ,  $\frac{5}{8}$  and  $\frac{3}{4}$ - $\frac{1}{4}$  sizes, and so listed in the catalogues, a practice which has been handed down from an old English application to the focus of photographic lenses, as related to the size of plate they were intended to cover. This application has, however, been very unsatisfactory, owing first, to the fact that they are terms which mean nothing definite as applied to Stereopticon work, and second, to the fact that the various dealers have adopted standards of their own, each of which, even though styled the same, is slightly different from the other, and most of which lack uniformity, even though of the same make.

As a remedy for this unsatisfactory condition, and for the convenience of those who are experienced, as well as those who are inexperienced, we have taken a radical departure from the old methods, and have arranged a series of lenses of uniform length of focus, designated in inches and known as equivalent focus. By equivalent focus is meant, the distance between the point within the lenses at which the light rays cross, and the point at which the stereopticon slide would be located when the lens is in focus. (The point at which the light rays cross is usually a little in front of a dividing line between the front and rear glasses).

We have also arranged for a regular ratio of increase in the length of focus from the short to the long. This feature is of inestimable advantage in matching the relative size of pictures for the Stereopticon and Motion Picture Machine, in which combination they are more generally used in public amusement work.

The object of having lenses of different length of focus, is to enable the operator to locate his instrument at the most convenient part of the hall, and yet project a picture, the size of which is best adapted to his requirements. For example, a 6-inch focus lens will project a 10 foot picture when located at a distance of 20 feet from the screen on which the pictures are to be projected, and a proportionately larger

## CHICAGO PROJECTING CO.

picture at a greater distance from the screen, while a 12 inch focus lens will project a 5-foot picture at 20 feet from the screen or a 10 foot picture at 40 feet from the screen. The size of picture in any case depends upon the relative distance from the instrument to the screen. (See diagrams under stereopticons introduction.)

Usually the diameter of the glasses, and both the diameter and length of the mountings increase in proportion to the length of the focus, the 6-inch focus lenses (called  $\frac{1}{4}$  size) being furnished in mounts of  $1\frac{1}{8}$  inches in diameter by  $3\frac{3}{8}$  inches long (without hood); the 10 inch focus (called  $\frac{1}{2}$  size) in mountings  $2\frac{1}{2}$  inches in diameter by  $5\frac{1}{4}$  inches in length; the 12 inch focus (called  $\frac{3}{4}$  size) in mountings 3 inches in diameter by  $5\frac{1}{4}$  inches long) and the 15 inch focus lens (called 4-4 size) in mounts  $3\frac{1}{2}$  inches in diameter by  $7\frac{1}{2}$  inches in length. While this ratio is theoretically correct there has been a growing tendency the past few years to modify the diameter of the glass together with the diameter and length of the mounts for greater convenience in interchangeability, portability, economy, and because of the fact that the old practice, while correct from a photographic standpoint, has been found to be more theoretical than practical when applied to projection work. For example, many exhibitors use nothing but the smaller mount  $1\frac{1}{8}$  inches in diameter ( $\frac{1}{4}$  size), for all foci ranging from 4 inches to 12 inches inclusive. While we furnish them in that way, we are inclined to advise against the use of the smaller mounts for anything beyond the 8 or 10 inch focus. While it is our custom to furnish whatever the individual exhibitor prefers, we recommend the use of the 4, 6 and 8 inch focus lenses in  $\frac{1}{4}$  size mounts, and everything above that may be used with entirely satisfactory results and much greater convenience in the  $\frac{1}{2}$  size glasses and mounts. The results are not so satisfactory when using lenses above 8 inch focus in the small glasses and mountings, owing to loss of light, which is caused both through crowding, and transmission through greater space. This will be especially noticeable when using the weaker forms of illumination. We have made a special endeavor to eradicate all of the unnecessary complications, and to make the selection of lenses as simple and as easy to understand as possible, instead of following the usual practice and custom of enveloping and shrouding the business in mystery, as some do in the belief that there are mercenary advantages to be gained thereby.

The following table shows approximate sizes of pictures projected by each size of Stereopticon Lens at different distances from the screen, and will serve as a guide in the selection of lenses to meet any requirements. The figures in the first column indicate length of focus of Stereopticon Lenses in inches, while the figures in the last column indicate the focus of Motion Picture lenses to match.

	20	30	40	50	60	70	80	90	100	110	120	E. F.
E. F.	feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	E. F.
4	$13\frac{1}{2}$ 15	$20\frac{1}{2}$ $22\frac{1}{2}$	27 30	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	
6	9 10	$13\frac{1}{2}$ 15	18 20	$22\frac{1}{2}$ 25	27 30	... ...	... ...	... ...	... ...	... ...	... ...	
8	$6\frac{1}{2}$ 8	$11\frac{1}{4}$ 12	$14\frac{1}{4}$ 16	18 20	$22\frac{1}{2}$ 24	25 28	... ...	... ...	... ...	... ...	... ...	
10	$4\frac{1}{2}$ 6	8 9	$11\frac{1}{4}$ 12	$13\frac{1}{2}$ 15	$16\frac{1}{4}$ 18	19 21	$22\frac{1}{2}$ 24	$24\frac{1}{4}$ 27	27 30	... ...	... ...	3
12	...	$6\frac{1}{4}$ 7	9 10	$11\frac{1}{4}$ 13	$14\frac{1}{4}$ 16	17 19	$19\frac{1}{4}$ 22	$21\frac{1}{4}$ 23 $\frac{1}{2}$	$22\frac{1}{2}$ 25	$24\frac{1}{4}$ 27 $\frac{1}{2}$	...	$3\frac{1}{2}$
15	...	$6\frac{1}{4}$ 6	$6\frac{1}{4}$ 8	9 10	$11\frac{1}{4}$ 12	$12\frac{1}{4}$ 14	$14\frac{1}{4}$ 16	$16\frac{1}{4}$ 18	18 20	19 21	$22\frac{1}{4}$ 24	$4\frac{1}{3}$
18	...	$4\frac{1}{2}$ 5	$5\frac{1}{4}$ $6\frac{1}{2}$	$6\frac{1}{4}$ 8	9 10	10 11	$11\frac{1}{4}$ 13	$13\frac{1}{4}$ 15	$14\frac{1}{4}$ 16	$16\frac{1}{4}$ 18	18 20	$5\frac{1}{4}$
21	...	...	5 $5\frac{1}{4}$	$6\frac{1}{4}$ $7\frac{1}{2}$	7 $\frac{1}{4}$ $8\frac{1}{2}$	9 10	$10\frac{1}{4}$ $11\frac{1}{2}$	$11\frac{1}{4}$ 13	$12\frac{1}{4}$ 14	14 15 $\frac{1}{2}$	15 $\frac{1}{4}$ 17	6

Lenses of different lengths of focus are also known by the following names:

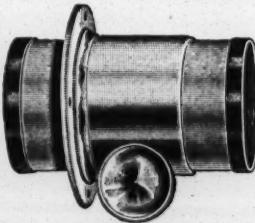
4 inch, wide angle; 6 inch,  $\frac{3}{4}$  size; 8 inch,  $\frac{3}{4}$  size; 10 inch,  $\frac{1}{2}$  size; 12 inch,  $\frac{3}{4}$  size; 15 inch,  $\frac{4}{4}$  size; 18 inch, long range, and 21 inch, extra long range.

The "Petite Jr." Stereopticon Objective Lenses, in  $\frac{3}{4}$  size mounts. This series of lenses is furnished in all lengths of foci, from 6 inch to 12 inch equivalent focus inclusive. The glasses are of good quality and possess good depth of focus. The mountings have a rack and pinion for focusing, are finished in gilt and are lacquered.

"Petite Jr." Stereopticon Objective Lenses, 6, 8, 10 or 12 inch focus, including Morocco dust cap. Price each..... \$4.50

"Petite Jr." Stereopticon Objective Lenses, 15 inch focus, including Morocco dust cap. Price each..... \$6.00

The "Petite Sr." Stereopticon Objective Lenses, in  $\frac{3}{4}$  size mounts. Are furnished in all lengths of foci from 4 inches to 12 inches inclusive, and are similar to the "Petite Jr.", with the exception that they are much better finished, have nickel plated lens barrels, black enameled lens cells, concaved thumb nuts, and fine rack and pinion movement for focusing. They are up-to-date in that the old fashioned type of shade has been omitted.



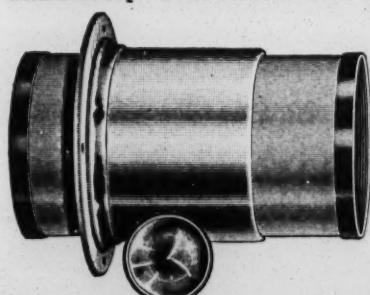
"Petite Sr." Stereopticon Objective Lenses, 6, 8, 10 and 12 inch focus, including dust cap. Price each..... \$6.00

"Petite Sr." Stereopticon Objective Lenses, 4 or 15 inch focus. Price each..... \$7.50

The "Roc Special Jr." Stereopticon Objective Lenses, in half size mounts. This series of Stereopticon Lenses is furnished in 10 and 12 inch focus only. The glasses are of good quality and possess good depth of focus. The mountings have a rack and pinion for focusing, are finished in gilt and lacquered.

"Roc Special Jr." Stereopticon Objective Lens, 10 inch focus with dust cap. Price each..... \$10.00

"Roc Special Jr." Stereopticon Objective Lens, 12 inch focus with dust cap. Price each..... \$12.00



The "Roc Special Sr." Stereopticon Objectives, in half size mounts. This series of lenses has been designed with a view to meeting any and all requirements. The formulæ have been designed by experts of long experience in the designing of Optical Projection Lenses. Both the glasses and the mounts are made by the most skilled workmen and no expense has been spared to make them everything that could be wished for. They are furnished in all lengths of foci from 10 to 21 inches inclusive, and are similar to the "Roco

Special Jr." with the exception that they are finished in the best possible manner. The mountings measure  $2\frac{3}{4}$  inches in diameter by  $5\frac{1}{4}$  inches in length, have nickel plated barrels, black enameled lens cells and fine rack and pinion movement for focusing, concaved thumb nut, and the bodies are finished in Egyptian bronze lacquer. They are

## CHICAGO PROJECTING Co.

up-to-date in that the old-fashioned type of shade has been omitted. This series of lenses gives greater illumination, will be found equal to all requirements, and afford a great convenience in the matter of interchangeability and portability, features which will be specially appreciated by the traveling exhibitor. We take great pleasure in recommending this series of lenses as being first-class in every respect and every one of them is guaranteed to give entire satisfaction.

**"Roe Special Sr." Stereopticon Objective Lenses**, in  $\frac{1}{2}$  size mounts, 10 inch focus with dust cap. Price each..... \$12.00

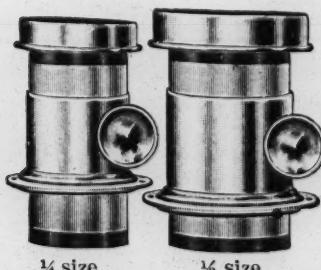
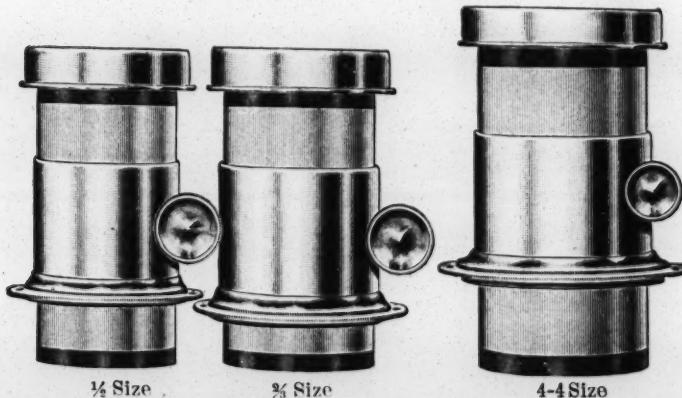
**"Roe Special Sr." Stereopticon Objective Lenses**, in  $\frac{3}{4}$  size mounts, 11 to 15 inch focus, with dust cap. Price each..... \$15.00

**"Roe Special Sr." Stereopticon Objective Lenses**, in  $\frac{5}{8}$  size mounts, 16 to 24 inch focus, with dust cap. Price each..... \$16.50

Lenses of longer focus will be quoted on application.

Hoods will be furnished when desired for 50 cents extra.

### Standard Stereopticon Objective Lenses.



These Lenses are the best grade of standard lenses, made by the Bausch and Lomb Optical Co. They have nickel plated barrels, black enameled lens cells, and bronze lacquered bodies. The cuts show the comparative sizes.

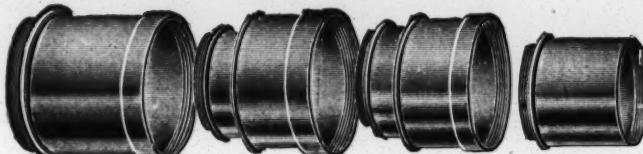
#### PRICES

$\frac{1}{4}$ size.....	\$ 7.00
$\frac{1}{2}$ size.....	12.00
$\frac{3}{4}$ size.....	14.50
$\frac{5}{8}$ size .....	21.00
4-4 size.....	32.00

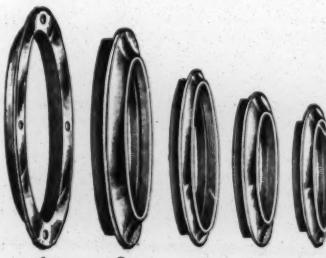
**Extension Tubes**, are used to extend the stereopticon or motion picture objective lens for convenience in focusing in combination with motion picture machines, or for other lenses. These tubes are furnished in various lengths.

Other sizes than those listed will be quoted on application.

225 DEARBORN ST., CHICAGO, ILL.



No. 1	Inner thread, $\frac{1}{2}$ size; outer thread, $\frac{1}{4}$ size.	Price each \$2.50
No. 2	Inner thread, $\frac{1}{2}$ size; outer thread, $\frac{1}{4}$ size.	Price each 2.50
No. 3	Inner thread, $\frac{1}{2}$ size; outer thread, $\frac{1}{4}$ size.	Price each 2.00
No. 4	Inner and outer thread $\frac{1}{4}$ size.	Price each..... 1.25



**Adaptors or Reducing Rings,**  
for stereopticon objective lenses.  
These Adaptors afford a great convenience, to those who work with more than one size of lenses. With the exception of the flange for the 4-4 objective, they have an inner and an outer thread. By securing the 4-4 flange to the instrument and screwing in the proper adapter, any size lens from the 1-4 up may be used.

**Prices of Reducing Rings.**

No. 1 Lens Flange for 4-4 Objective.....	\$2.00
No. 2 Reducing Adaptor, 4-4 to $\frac{1}{2}$ .....	2.50
No. 3 Reducing Adaptor, $\frac{1}{2}$ to $\frac{1}{4}$ .....	1.75
No. 4 Reducing Adaptor, $\frac{1}{2}$ to $\frac{1}{4}$ .....	1.50
No. 5 Reducing Adaptor, $\frac{1}{2}$ to $\frac{1}{4}$ .....	1.25
No. 6 Reducing Adaptor, 4-4 to $\frac{1}{4}$ .....	2.50
No. 7 Reducing Adaptor, $\frac{1}{2}$ to $\frac{1}{4}$ .....	1.50
No. 8 Reducing Adaptor, $\frac{1}{2}$ to $\frac{1}{4}$ .....	2.00
No. 9 Reducing Adaptor, $\frac{1}{2}$ to $\frac{1}{4}$ .....	2.00

**Condensing Lenses** form an indispensable feature of every Stereopticon and Motion Picture Machine. They serve to gather and concentrate the rays of light for passage through the objective lens. Modern instruments made by the best makers use the standard size condensing lenses which is  $4\frac{1}{2}$  inches in diameter. We carry in stock the following foc:  $5\frac{1}{2}$ ,  $6\frac{1}{2}$  and  $7\frac{1}{2}$  inch. To obtain the best results the focus of the condensers should be suited to the objective lens. We advise the use of the following combinations in the same mount depending on the focus of the objective.

Two  $5\frac{1}{2}$  inch focus; one 5 and one  $6\frac{1}{2}$  inch focus; two  $6\frac{1}{2}$  inch focus; one  $6\frac{1}{2}$  and one  $7\frac{1}{2}$  inch focus; two  $7\frac{1}{2}$  inch focus, depending on the focus of the objective lens.

In ordering condensers separately, the focus of the objective lens with which they are to be used should be specified, otherwise we will ship  $6\frac{1}{2}$  inch focus. We list two different grades, the difference being in the finish and annealing.

Condensers No. 1 grade,  $4\frac{1}{2}$  inch, without mounts, each..... \$1.50

Condensers No. 2 grade,  $4\frac{1}{2}$  " " " ..... 1.00

Condensers  $3\frac{1}{2}$  inch, best grade, for spun cone, each..... 1.25

Condensers  $2\frac{1}{2}$  " best grade, for VapoSearch Light, each.... .85

Mounts for  $4\frac{1}{2}$  inch Condensing lenses, consisting of a heavy sheet brass nickel-plated outer casing with an inner sleeve and separator ventilated, per set..... \$1.50



CHICAGO PROJECTING CO.

## The "A. C. R." Adjustable Rheostat UNDERWRITER'S MODEL

The "A. C. R." Adjustable Rheostat, Underwriters' Model is another one of the "A. C. R." improvements, which has been designed to meet the growing demand for a rheostat of greater capacity and utility. The "A. C. R." Adjustable is made sufficiently heavy for all practical purposes, yet it is not a burden by being unnecessarily heavy.

The resistance consists of a number of individual coils of very high grade resistance wire, any one of which may be replaced without disturbing the others. The coils are insulated from the frame by porcelain insulators, to which they are attached in a novel manner. An important feature is that the number of insulators used is only one-half the customary number. This feature considerably reduces the weight and makes the coils much more convenient of access, yet the insulation is perfect and has an abundance of strength.

The adjustment lever is mounted on a slate base, which furnishes the highest class of insulation. It is located on the end of the rheostat, instead of on the side—a feature that has many advantages. It is less liable to injury in transportation, and entirely free from the liability of the lever being moved by accident.

The slate base adjustment lever is thoroughly protected from accidental breakage by a metal cap, yet the lever is made readily accessible by an adjustable telescopic extension handle that is tipped with fibre. After adjustment, the handle is telescoped to prevent accidental movement or tampering.

This rheostat is provided with a perforated steel jacket, which is sufficiently strong to furnish ample protection. The jacket may be instantly removed, by removing a few screws in the base and sides. The jacket is in two sections, and may be quickly removed or replaced. The "A. C. R." is arranged so it may be inverted and four legs used instead of the cap, an arrangement which is desirable under certain conditions.

**Capacity:** This Rheostat, when on currents of from 104 to 125 volts, will give from 25 to 30 amperes without excessive heating. The 220 volt Rheostats will furnish about 25 amperes.

The "A. C. R." Adjustable Underwriters' Rheostat is strictly high-class in every respect, and fills the requirements of both the motion picture exhibitor, (whether a traveler or permanently located), and the municipal authorities.

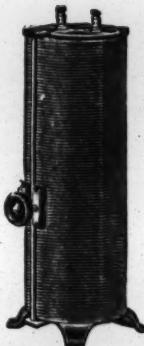
**Dimensions:** For 110 volts height to top of cover, 15 inches; length, 9 $\frac{1}{2}$  inches; width, 4 $\frac{1}{2}$  inches; weight, about 21 lbs.

For 220 volts the dimensions are the same except that it is about 5 inches higher.

### PRICES

The "A. C. R." Underwriter's Adjustable Rheostat, 110 volts with cover or legs.....	\$17.50
Same without cover or legs.....	16.00
The "A. C. R." Underwriter's Adjustable Rheostat, 220 volts, with cover.....	25.00
The "A. C. R." Underwriter's Non-Adjustable Rheostat, sim- ilar to the "Underwriter's Adjustable" except that it is non- adjustable and is not provided with the cover on the top.....	\$10.00
Set of Four Legs for either of the above rheostats.....	1.50

225 DEARBORN ST., CHICAGO, ILL.

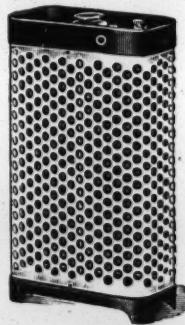


**"Excelsior" Rheostat, No. 1.** This Rheostat is light and strong, is adjustable and is adapted to direct current of 55 to 110 volts, and alternating 52 to 104 volts. It has iron frames top and bottom, separated by a sheet metal form, is well insulated, and is especially adapted to the use of the traveling exhibitor. Height 16 inches. Weight, 5½ pounds. Price ..... \$4.00

**"Excelsior" Rheostat,**  
No. 2, same as the No. 1, ex-  
cept that it is covered with a  
heavy wire screen.  
Price \$7.50

The "Excelsior" Rheostat, No. 3. This rheostat is the same as "Excelsor" No. 1, except that it is wound with finer wire for use with ordinary lamps using  $\frac{1}{4}$  inch carbons and socket attachment. Price..... \$4.00

The "Roe" Rheostat, is a very popular form for the traveling exhibitor. It is provided with a number of resistance coils, which are protected from contact by a heavy perforated sheet metal covering and is adjustable by turning the handle on the top. The resistance coils may be replaced at small cost in case of accident. This Rheostat is intended for either direct or alternating current, and is calculated to carry fifteen amperes on a current of 110 volts. Price.....\$10.00



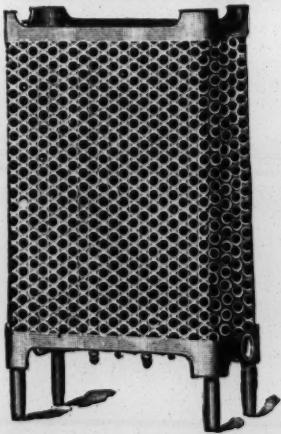
**"A. C. R." UNIVERSAL**

## **Four Rheostats In One**

The "A. C. R." Universal Rheostat meets a long-felt want, in that it is adapted to varying conditions, and is especially adapted to the requirements of the travelling exhibitor. It is neat in design, sufficiently heavy for all practical purposes, and is not a burden by being unnecessarily heavy. The resistance consists of a number of individual coils of high-grade resistance wire, any one of which may be quickly replaced without disturbing the others. The coils are insulated from the frame by porcelain insulators, to which they are attached in a novel manner.

The "A. C. R." Universal Rheostat was so named because of its universal adaptation. While it is of the non-adjustable type it is so arranged that by making the proper connections to the binding posts it may be used as follows:

On 110 volt circuit, one lamp to carry about 12 amperes. On 110 volt circuit, one lamp to carry 25 amperes. On 110 volt circuit, one lamp to carry about 50



amperes. On 110 volt circuit, two arc lamps, to carry 25 amperes for each. On 220 volt circuit, one lamp to carry about 25 amperes.

This Rheostat is provided with a perforated steel jacket which may be instantly removed by removing a few screws from the base and sides, the jacket being in two sections.

Four legs may be used to raise the Rheostat above its support, in order to comply with the requirements of certain cities.

CHICAGO PROJECTING CO.

**PRICES FOR "A. C. R." UNIVERSAL RHEOSTAT.**

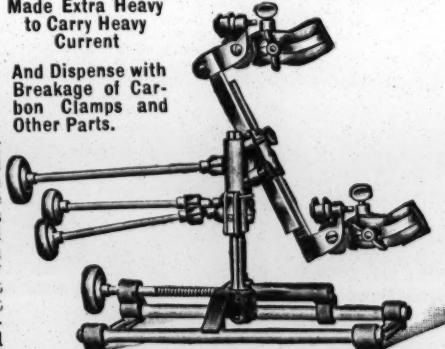
"A. C. R." Universal Rheostat, including four legs.....	\$15.00
Togo Rheostat, similar to the above, except that it is non-universal, is longer, is equipped with cheaper grade resistance wire, and will carry about 20 amperes.....	9.00
Togo Rheostat, Same as the above, but without cover,.....	8.00
Set of four legs for either of the above rheostats.....	1.50

**The "Motio" Universal Arc Lamp**

The "Motio" Universal Arc Lamp was designed for use with the Motiograph Motion Picture Machine and possesses many features of advantage not to be found heretofore in other lamps. Besides being unusually strong and heavy, and adapted in every particular for use on heavy currents, it is provided with improved extra heavy carbon clamps, which not only furnish ample contact surface to prevent short circuiting, but are sufficiently strong to avoid the breakage so common in other lamps. The carbons are held firmly between two strong jaws, and are clamped in place by a single thumb screw. The clamps will hold firmly the entire range of sizes of carbons that are in general use.

Made Extra Heavy  
to Carry Heavy  
Current

And Dispense with  
Breakage of Carbon Clamps and  
Other Parts.



All Hand Wheel Adjustments for focusing are a special feature not to be found in any other arc lamp, and one that is much appreciated by experienced operators. It has the vertical, sidewise and endwise adjustments operated by hand wheels, all located outside of the lamp house with which the point of illumination may be accurately, quickly and positively adjusted to the focus of the condensers. Each adjustment is entirely independent of the other, which enables the operator to correct any one without disturbing the others. The vertical and sidewise adjustments and the carbon feed have flexible ball shafts or arbors, which permits of their being located stationary at the point where they pass through the lamp house. This arrangement is a very great advantage, as it enables the operator to get more accurate and quicker adjustments than otherwise would be obtainable. Another feature is the insulated adjustable carbon clamp stops, which in case the joint should become loose, will prevent the clamp from dropping down and causing a short circuit. This feature is necessary to fill the fire inspector's requirements in some cities. The rack adjustment is unusually long and is sufficient to consume full 6 inch carbons with one setting. The lamp is very rigid, well finished and nickel plated.

**PRICES.**

"Motio" Universal Arc Lamp, with upright spindle, but without sliding base.....	\$15.00
Sliding Base, with backward and forward screw adjustment, adapted to use in any lamp house 6 inches or more in width.	
If desired, extra.....	\$5.00
Extra Carbon Clamps, Main, upper or lower, each.....	1.40
Extra Carbon Clamps, Auxiliary, upper or lower, each.....	.60

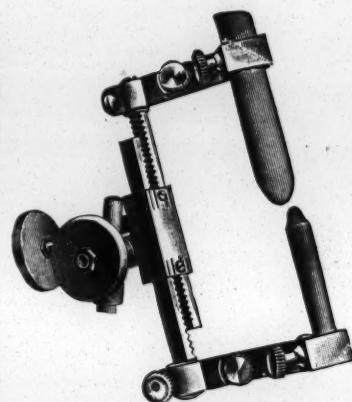
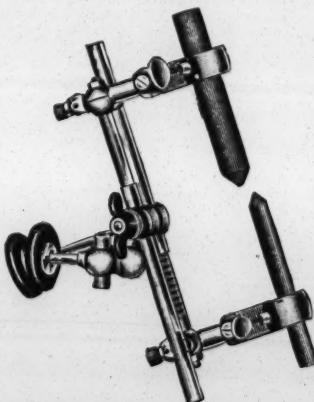
## The "Togo" No. 1 Electric Arc Lamp.

This Electric Arc Lamp is similar in form to the "Roco Premier", but has square rack rods instead of round, and the frame, carbon holders, arms, etc. are made with the square, instead of the round finish, and it is not quite so heavy. The carbon holders are held in line by friction plates instead of guide forks as in the Roco Premier. The small illustration shows position for alternating current. It is a well finished lamp, and the best on the market for the money.

Price.....\$4.00

**The Togo No. 2 Electric Arc Lamp**, better finished throughout, and has polished nickel finish instead of the satinized finish. Price....\$6.00

## The "Roe Premier" Self-Centering Electric Arc Lamp.



This lamp is a great improvement over other lamps of this type, both in utility and beauty of design. It is provided with a perfect double rack and pinion movement, which moves both carbons in unison, and keeps the light centered. The rack rods are round and operate in long cylindrical bearings, which makes them work much more smooth and regular than those of the square type. The guide forks, having a bearing well away from the center of the rod furnishes the maximum of rigidity, and serve to hold the carbons accurately in line. The parts are made strong and durable, and being furnished in the round, are easy to keep clean, and present a most artistic appearance.



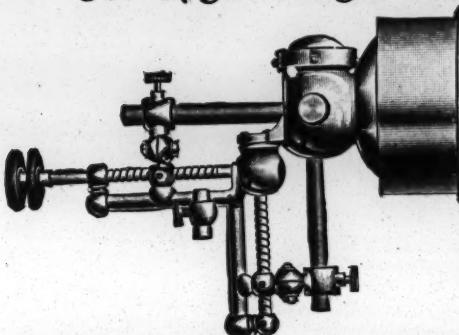
The carbon holders are adjustable, making them equally adapted to both alternating and direct currents. The adjustment wheel is well back away from the heat, is easy to get at, rapid, and certain in its action. The small illustration shows position for alternating current.

In our "Roe Premier" Improved Self Centering Arc Lamp, as in our new line of Calcium Jets, we have introduced the new turned ball finish. In fact, on every part where it is possible round parts have been used, which, together with the excellent form and proportions of the different parts, contributes to the artistic merit more than can be expressed in words or picture.

This is without question the most artistic, and in every way the best Electric Arc Lamp ever placed on the market, and yet is sold for no more money than others ask for inferior goods. Full polish finish and nickel-plated, price.....\$8.00

CHICAGO PROJECTING CO.

## The Right Angle Arc Lamp



a  $\frac{1}{8}$  inch solid vertical carbon. For alternating current use two  $\frac{1}{8}$  inch cored carbons. On direct current the "Right Angle" will give more light and a more even illumination than the tilted form and is a great favorite with many operators, but requires more attention in feeding. Size of frame is about 5 inches long by 5 inches high. Length of feed for each carbon about  $2\frac{1}{4}$  inches. The gears are protected from injury by a hollow ball casing. Full nickel plated and polished.

Price without Ball Hood and Jacket.....\$8.00

**Ball Hood with Polished Nickel Plated Shield and Jacket** for use with Skeleton Lanterns which have no lamp house, has camera peep for focusing, with screws for attaching. Price.....3.00

**NOTE**—The Ball Hood is attached to the Right Angle Lamp by means of screws and dowel, is made interchangeable and may be attached at any time.

### Automatic Electric Arc Lamps

**AUTOMATIC ELECTRIC ARC LAMPS** are little used. They are not only very expensive, but have proven very unsatisfactory for projection work; are hard to control; very bulky, and we neither list nor recommend them. Prices, however, will be quoted on application.

### Slip Slide Dissolving Carrier



This carrier is specially designed to secure a dissolving effect with single stereopticons. Its operation is simple and rapid. The slide is dropped in the slot at top of the carrier and pushed into place by means of a lever. When the next slide is to be inserted, while the former slide is still projected on the screen, the same operation of the lever carries the second slide into place in front of the other slide. The lever is pulled back, which immediately withdraws the first slide, and the second slide is pushed into optical position by means of the springs. The complete operation of changing the slides is done in the fraction of a second and the dissolving effect is produced on the screen by the operation almost equal to that of a double stereopticon.

This carrier is made in two styles, Style No. 1 being made entirely of brass and handsomely nickel plated, while Style No. 2 is made of hardwood, mahogany finish, polished, with nickel trimmings. They measure  $1\frac{1}{2} \times 4$  inches.

#### PRICES.

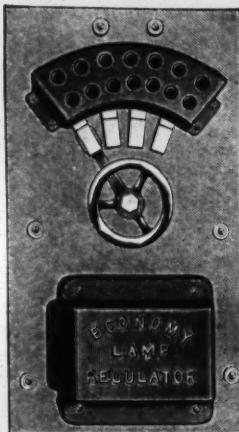
No. 1,    inches wide.....\$3.50    No. 2,  $1\frac{1}{2}$  inches wide.....\$2.00

225 DEARBORN ST., CHICAGO, ILL.

Motion Picture Theatres **SAVE 60 PER CENT** on Alternating Current by Using the

## Economy Lamp Regulator

Size 14x24 Inches--Adjustable 20 to 80 Amperes



Patent Applied For.

posts; by removing the jumper wire an ammeter may be connected in circuit which will be found very convenient for regulating the arc and as a guide to the operator.

All wiring and connections are made on back of board and are according to underwriters' rules. Each board is provided with four cast feet, which hold the board four inches from the wall in rigid position.

In addition to the saving in current consumption the Economical Lamp Regulator corrects one of the greatest evils of the animated picture machine when used with alternating current, viz.: the ghosts or dark spots which every operator has found. This spot is caused by the arc traveling around the edge of the carbon, leaving a glow at the point which the arc has just left, which is reflected or picked up by the condensing lens and shows an irregular dark spot on the screen which constantly changes as the arc travels.

By using the Economical Lamp Regulator we do away with this trouble, as our carbons burn off at a cone point, no tack heads or irregularity forming. This throws a ball arc which is at all times stabled between the two points formed, this being the ideal arc for this class of work. In designing the Economy Lamp Regulator, the illuminator or light feature has been given due consideration, as well as the electrical and mechanical features, and the results accomplished by the use of the Economy Regulator may be summed up as follows:

### SIXTY PER CENT SAVING OF ELECTRICITY.

An adjustable arc ranging from 20 to 80 amperes. Even light; no dark spots or ghosts on screen. No noise at arc or in the regulator. After carbons once shaped will need no further attention until entirely consumed. Carbons last longer; two  $\frac{3}{4}$ -inch or one  $\frac{5}{8}$  and one  $\frac{1}{2}$ -inch cored, recommended. Heat caused by wasted current consumed when using a rheostat is entirely eliminated from operating room. Fireproof, fool proof and does not get out of order because it cannot be overloaded. For alternating current only. Price right.

**NET PRICE, F. O. B. CHICAGO \$75.00**  
(Weight, 90 Pounds, Boxed)

CHICAGO PROJECTING Co.

**Carbons for Electric Arc Light.**

Solid Carbon

Soft Cored Carbon

give off a dust when burning, have hard spots that cause the light to grow dim at times, and make a hissing noise. Our carbons are made expressly for optical projection work, the combustion is even and perfect, they give a brilliant uniform light, and produce the highest candle power obtainable in proportion to the current consumed. For direct current, when using 15 to 20 amperes we advise the use of the  $\frac{1}{8}$  inch soft cored carbon above and  $\frac{1}{16}$  inch solid carbon below. When using 25 to 30 Amperes we advise a  $\frac{1}{16}$  soft cored upper and  $\frac{1}{8}$  inch solid lower carbon.

For alternating current use  $\frac{7}{16}$  or  $\frac{1}{4}$  soft cored carbons both top and bottom, depending upon the number of amperes used.

We carry in stock the following sizes:

**Soft Cored Carbons.**

$\frac{7}{16}$ inch. Per doz.....	\$0.50
$\frac{1}{2}$ inch. Per doz.....	0.53
$\frac{1}{4}$ inch. Per doz.....	0.55
$\frac{1}{8}$ inch. Per doz.....	0.65

**Solid Carbons.**

$\frac{1}{8}$ inch. Per doz.....	0.40
$\frac{1}{16}$ inch. Per doz.....	0.35
$\frac{1}{32}$ inch. Per doz.....	0.35
$\frac{1}{64}$ inch. Per doz.....	0.25

In lots of 100 we allow a discount of 10%.

**Flattened Carbons for**

**Alternating Current.** Illumination from alternating currents has a tendency to be noisy and unsteady, particularly when using low amperage. The advantages claimed for this carbon is that it reduces the noise, and on account of one side being flattened has a tendency to hold the "crater" more to the front side of the carbon. When using these carbons, the flat side of both should be toward the condensing lenses. These carbons are made in one size only, which is  $\frac{1}{16} \times 10$  inches.

Price each.....	\$0.10
Per dozen.....	1.00

Solid Carbons, $\frac{1}{16}$ inch. Per doz.....	\$0.25
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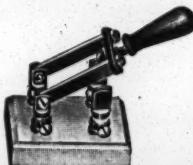
**"Special Sun Rival" Mantles,** for use with the "Sun Rival" gasoline vapor light and the "Roco" Welsbach gas burners. These mantles are made special for stereopticon work and have more than twice the mineral strength (Oxide of Thorium) hence their greater power of illumination. The mantles used for house lighting are not satisfactory for stereopticon illumination. Price, each..... \$0.15  
Per dozen..... 1.78

**"Vapo Searchlight" Mantles,** for use with the Alcohol Vapo Search Light. These mantles are very heavily charged with the mineral (Oxide of Thorium) and give the maximum of illumination. They are smaller than the "Special Sun Rival" mantles. Price, each..... \$0.20  
Per dozen..... 2.25

225 DEARBORN ST., CHICAGO, ILL.

### Electric Switches.

Exhibitors using Electric Arc Lamps should provide themselves with a Knife Switch. A fuse block is also desirable, for if in any way a short circuit is formed, no damage would be done other than to melt the fuse on your block, which could be instantly replaced. We recommend the Nos. 5 or 6 Combined Switch and Fuse Block to use enclosed fuses. In many cities the insurance companies prohibit the use of any but enclosed, or cartridge fuses. We also advise the use of a 50 ampere switch and fuse block, because when using alternating current it is necessary to use 30 to 40 amperes of current to get good results on motion pictures.



**Electric Knife Switch No. 1,** porcelain base 250 volts and 30 amperes. Price each.....\$0.65

**Electric Knife Switch No. 2½,** for 50 amperes, slate base, heavier than No. 1. Price each..\$1.60

**Electric Knife Switch and Fuse Block No. 3,** for open link or plain wire fuses. Slate base, 250 volt, 25 ampere. Price each, without fuses.....\$1.75

**Electric Knife Switch and Fuse Block No. 4,** for open link or plain wire fuses, 250 volts, 50 amperes, otherwise same as No. 3, price each, without fuses.....\$2.50

**Fuses, open link,** for Nos. 3 or 4, price per dozen.....\$0.40

**Electric Knife Switch and Fuse Block No. 5,** for enclosed fuses. Slate base, 250 volts, 25 amperes. Price each, without fuses.....\$1.25

**Electric Knife Switch and Fuse Block No. 6,** for enclosed fuses. Slate base, 250 volts, 50 amperes, price each, without fuses.....\$2.00

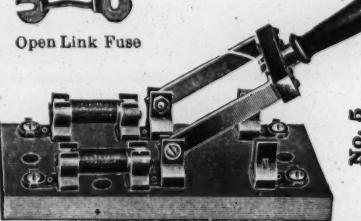
**Fuses, enclosed** for No. 5 block, 25 ampere. Each.. 0.25

**Fuses, enclosed** for No. 6 block, 50 ampere. Each.. 0.30



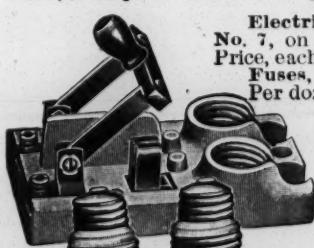
Open Link Fuse

No. 5



**Electric Knife Switch and Plug Cut Out No. 7,** on porcelain base, 250 volts, 30 amperes. Price, each, without fuses.....\$1.00

**Fuses, plug,** for No. 7, each..... 0.10  
Per doz..... .85



Knife Switch No. 7



Electric Cut Out, No. 8

**Electric Cut Out No. 8,** with porcelain base, for enclosed fuses, 250 volt, 25 ampere. Price each..... \$0.90

**Flexible Electric Light Wire, Double,** called lamp cord, with heavy cotton insulation for connecting electric arc or incandescent lamps to the main line.

Length of 30 feet. Price (without tips) ..\$1.20  
Shorter lengths, per foot..... 0.08



## CHICAGO PROJECTING CO.

**Note:** The flexible electric lamp cord should not be used where more than 15 amperes of current is being consumed, as the insulation would be liable to burn off.

**Electric Wire Tips** will be found a great convenience for the terminals of flexible electric light wire; will insure perfect contact and full strength of the current will be obtained. (The insulation must be removed at the point where the terminals are attached to the wire.) Price each.....\$0.10

**Asbestos Stage Cable** for making connections between main lines and electric arc lamps, specially adapted to conducting heavy currents. Each of the two conductors of this cable is composed of a large number of fine copper wires and is heavily insulated with asbestos. See cuts of Jute Stage Cable.

Length of 50 feet or more. Prices quoted on application.

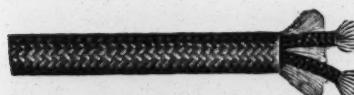
Lengths of less than 50 feet. Prices quoted on application.

**Single Conductor Asbestos Stage Cable.** Requires two cables to complete the circuit.

**Length of 50 feet,** without copper tips.....\$5.00

**Less than 50 feet, per foot** ..... 0.12

**Copper Cable Tips,** each ..... 0.10



Jute Cable No. 10



Jute Cable No. 6

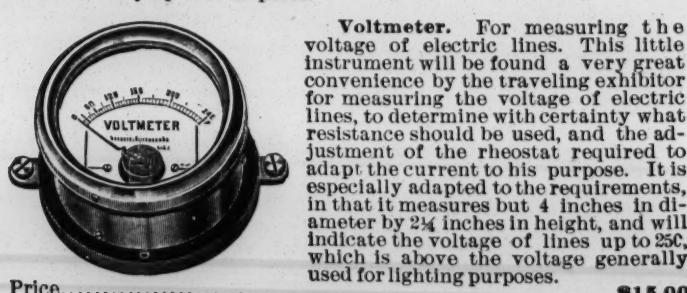
Jute Stage Cable No. 10, length of 50 feet or more. Per foot.....\$0.14

Jute Stage Cable No. 6, length of 50 feet or more, per foot ..... .25

No. 10 will carry up to 20 amperes.

No. 6 will carry up to 50 amperes.

**Jute Stage Cable.** Each of the conductors of this cable is composed of a large number of fine copper wires, which makes the cable very flexible. Each conductor is insulated with rubber and braided coating, then twisted, filled with jute to make round, and both are covered with a heavy cotton braid well saturated so as not to be affected by moisture.



Price.....\$15.00

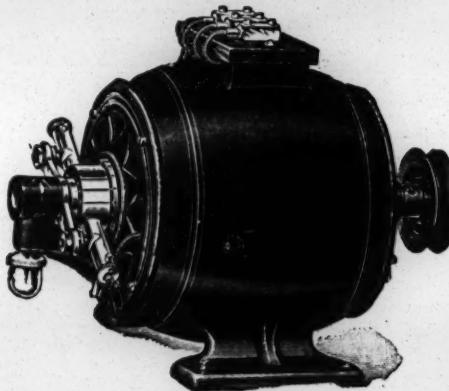
**Voltmeter.** For measuring the voltage of electric lines. This little instrument will be found a very great convenience by the traveling exhibitor for measuring the voltage of electric lines, to determine with certainty what resistance should be used, and the adjustment of the rheostat required to adapt the current to his purpose. It is especially adapted to the requirements, in that it measures but 4 inches in diameter by 2 $\frac{1}{4}$  inches in height, and will indicate the voltage of lines up to 25c, which is above the voltage generally used for lighting purposes.

**Ampere Meter.** For measuring the amperage of electric lines. This instrument is the same size and form as the Voltmeter listed above, and makes an excellent companion to that instrument, although not so necessary. It measures to 75 amperes. Price.....\$15.00

225 DEARBORN ST., CHICAGO, ILL.

## Direct Current Motors

### SEMI-ENCLOSED TYPE.



of design, they cannot be excelled.

The bearings are self-oiling; the commutators are of special composition calculated to wear better and more evenly than those of ordinary construction. They are so designed as to give ample carrying capacity, as well as great convenience in removing and renewing the brushes.

The speed controllers for these machines are arranged for a variation of speed that will cover all reasonable requirements.

These machines are especially adapted for use with Motion Picture Machines, film winding apparatus, etc.

#### PRICES.

**Direct Current Motor, 1/8 H. P.,  
110 Volts,** weight about 18 lbs.,  
including speed controller.....\$28.00

**Direct Current Motor, 1/8 H. P., 220 volts,** weight about 18 lbs.,  
including speed controller.....\$30.50

Prices for alternating current furnished on application.

**Note**—These Motors are furnished at the above prices with grooved pulley only. For use with the Motiograph Motion Picture Machine, a flat belt is most desirable. The flat pulley should be ordered at an additional cost of \$1.50.



be wrong, it can be instantly corrected by removing the plug block, and turning half round. Will carry 45 amperes. Price.....\$1.00



The motors here illustrated and described are thoroughly high class in every particular, being the result of long experience in the manufacture of small motors suited for the class of trade that requires quiet running, well finished, practical and up-to-date machines.

We offer these motors to our trade with every feeling of assurance that they will justify and bear out our claims that for efficiency, durability, quietness in operation and beauty

**Double Plug Electric Connection.**  
A convenient way of making quick connection for either the traveling exhibitor or for societies, schools, churches and home use. The larger block with the holes in should be attached to the supply wire, and the smaller part with the plugs, to the wires leading to the machine. Should the polarity of the lamp

be wrong, it can be instantly corrected by removing the plug block, and turning half round. Will carry 45 amperes. Price.....\$1.00

CHICAGO PROJECTING CO.



May  
be  
Used  
With  
Either  
a  
Single,  
Double,  
or  
Triple  
Lantern.

Outfit in operation  
**PRICE OF MODEL B COMPLETE GAS MAKING OUTFIT**  
(Lantern and Calcium Jet not included.) **\$37.50**

**See Description on Following Pages**

Here's What  
You're Looking for

The New Process  
"MODEL B"

**Enterprise  
Calcium Gas  
Outfit**



This view shows the relative size of the "Enterprise" complete Gas Making Outfit in case. Weight about 35 pounds.

225 DEARBORN ST., CHICAGO, ILL.

# The "Model B" Enterprise • Calcium Light Outfit •

## A VICTORY OF SCIENCE

**Makes Its Own Gas, but Requires No Forced Pressure, No Hot Retort, No Furnace, No Hot Water, No Heat of Any Kind. No Gases in Wrong Place. Failures, Delays, Accidents, unnecessary. Dispenses with Freight, Express, Cartage, and Excess Baggage Bills. No Disappointments Owing to Delays in Transit, or Illuminating Apparatus Going Astray as when Using Cylinders or Old Style Outfits.**

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**ANYONE CAN USE IT WITH PERFECT SAFETY, AND ITS WEIGHT IS BUT ABOUT 35 POUNDS (In Case)**

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**It Makes PURE Oxygen Gas (Others only 85 Per Cent). It is Positive. It is Automatic. It Makes Gas as Used. You may Charge it Five Minutes or Twenty-Four Hours in Advance. Stop Using Gas, it Stops Making. No Waste of Chemicals, as it May be Charged for a short Entertainment if Desired. Gives Over 700 Candle Power. Light as strong as from Compressed Gases in Cylinders, and Stronger than Produced by the Old Style Portable Gas Making Outfits.**

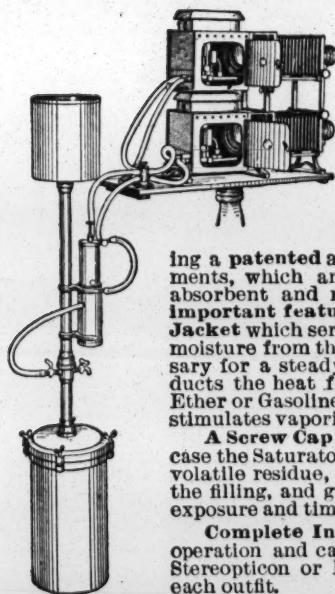
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Calcium Light is produced by burning in combination, the proper proportion of Oxygen and Hydrogen gases, both of which are generated in the Enterprise outfit. **The Oxygen Gas** is generated from either one of the New Oxygen Chemical Compounds, called "**Oxylithe**" and "**Oxone**" which are made by recently patented processes, and are put up in tin boxes, containing about  $2\frac{1}{2}$  to  $2\frac{3}{4}$  pounds. These chemicals generate Oxygen Gas when brought into contact with water with which the tanks are partly filled. **The Hydrogen Gas** is produced by the vaporizing of a fine grade of Ether. Calcium Light, (sometimes called Oxy-Hydrogen) is the only all-around satisfactory light for the traveling exhibitor who desires to give a first-class show to large audiences.

All who have examined the Enterprise agree that it is a most satisfactory method for the production of Calcium Light, and that its use adds much to both the pleasure and the profit.

CHICAGO PROJECTING CO.

.....DIRECTIONS.....



Remove the cover from the Oxygen Tank, put a number of cakes of the Oxygen Compound in the holder, replace the cover, attach the stand pipe and upper tank, pour in water, charge the Saturator with a quantity of Ether or 88° grade Gasoline, connect the rubber tubes to the Calcium Jet (burner) and all is ready.

**THE SATURATOR** for generating hydrogen gas is of a new and improved design having a patented arrangement of saturating compartments, which are filled with a specially prepared absorbent and non-deteriorating material. A very important feature of this Saturator is a Condensing Jacket which serves a double purpose. It takes the moisture from the Oxygen Gas—dry gas being necessary for a steady light—and at the same time conducts the heat from the warm Oxygen Gas to the Ether or Gasoline contained in the Saturator, which stimulates vaporization.

A Screw Cap on the bottom makes it possible, in case the Saturator should become clogged with non-volatile residue, to very quickly and easily change the filling, and give the one that was in use ample exposure and time to dry.

Complete Instructions, that tell all about the operation and care of the outfit, attaching it to the Stereopticon or Magic Lantern, etc., accompanies each outfit.

**Dissolving Views**, which represent the highest attainment in the art of Stereopticon Projection, as further referred to on another page under the title of Single and Double Enterprise Stereopticons, may be shown with the most perfect results with the Model B Calcium Gas Outfit in combination with a Double Stereopticon, and the regular Low Pressure Dissolving Key as shown in the illustration herewith. When ordering for dissolving work two extra pieces of tubing should be ordered with the dissolving key, to make the additional connections required.

**THE TANKS of the Model B Outfit** are each drawn from a single piece of the very best sheet steel and are without seams, rivets or solder, which are frequently the causes of leakage. Both tanks are coated, inside and out, with porcelain, which renders them positively proof against the action of chemicals, easy to keep clean, free from rust or corrosion, and practically indestructible.

The entire outfit is constructed on scientific principles, is made of the very best materials, and by the most skilled workmen. The top of the oxygen tank is ornamented by a neat design of relief scroll work. The fittings including the Saturator, Stand Pipe, Oxygen Tank Top, Band, Clamp Screws, Cocks, etc., ARE HEAVILY NICKEL PLATED, and the whole presents an unusually Rich and Artistic Appearance.

The Oxygen Tank is 6x15 inches, and the height of outfit complete, set up for use, is 45 inches. The dimensions of the carrying case is 10x10x24 inches, and the weight of the complete outfit in case is about 85 pounds.

225 DEARBORN ST., CHICAGO, ILL.

**The Model B Calcium Gas Outfit** possesses the very great advantage of being always at hand, and that the exhibitor can always depend on having a supply of pure gases in a few minutes' notice which cannot be said of the compressed gases in steel tanks, owing to the unreliability of the railroads and other transportation companies who often fail to get goods to destination on time, or through mistake ship them to the wrong place, to say nothing of occasional disappointments from breakage or mistake in estimating quantity on hand. While an Electric Arc Lamp is a good thing to have, electric connections cannot always be had, because very often the hall or church in which the exhibition is to be given may not have been wired for electricity.

If you wish to know more about this outfit, or there's anything you don't understand, write us for further particulars, specify what you wish to know, and we'll be pleased to give the information desired.

**WE GUARANTEE the Model B Calcium Gas Outfit** to be well made, durable, efficient and to be as represented throughout, and will replace without charge any parts that may show defective material or workmanship.

**WE CANNOT SAY ENOUGH**

For the merits of this Outfit, as all who have used it say that it **will revolutionize the business, and is everything that could be wished for.**

**....PRICES....**

<b>THE ENTERPRISE MODEL B CALCIUM GAS LIGHT OUTFIT,</b>	
complete, including rubber tubing, wrench, tongs, funnel, and full printed instructions, in case (Wght. with case about 35 lbs.)	<b>\$37.50</b>
Extra filler for Saturator, each.....	.75
"Oxylithe" Oxygen Compound, per box .....	1.35
"Oxone" Oxygen Compound per box.....	1.35

See the Following Page for further particulars on Oxone and Oxylithe.

**Sulphuric Ether**, of best quality for Calcium Light, in sealed cans, per pound. .... **1.00**

One box of oxygen compound and about  $\frac{1}{2}$  of a pound of Ether or Gasoline is sufficient for an entertainment of over one and one-half hours, with a jet of medium bore.

**IMPORTANT—Our Improved Perfect Combustion "Non-Pop" Calcium Jets will be found a great advantage and should be used with this outfit.**

Ether is a little more expensive, but we recommend its use in preference to the gasoline, as the additional expense is a very small consideration. It gives better results, may be carried in small quantity, and it can be had of almost any druggist, while gasoline of the 88 refined grade can be had only from the large cities, and must be shipped by freight. **STOVE GASOLINE MUST NOT BE USED.** See 88 test gasoline listed on another page.

CHICAGO PROJECTING CO.

# Oxone

## TWO VICTORIES OF SCIENCE

# Oxylithe

That are of inestimable value and furnish a much needed and long sought convenience to The Optical Projectionist.

By Simply Bringing Either one of these new chemicals into contact with water in the same manner as when producing acetylene gas from calcic carbide, they will generate almost

## . . . PURE OXYGEN GAS . . .

which, when burned against the surface of a piece of lime in combination with the vapor of Ether or Gasoline will produce the most brilliant form of

## Calcium or Lime Light

**CALCIUM LIGHT** has always been the favorite and main dependence of the optical projectionist even in the bygone days when it has been necessary to procure the gases ready made in high pressure steel tanks, or to make it with the old-fashioned, portable outfit in which chemicals, consisting of black oxide of manganese and potash, were converted to gas by placing the heavy iron retort into a stove or furnace and heating it red hot.

## But How Different Now!

All that is required is to place Oxylithe or Oxone in the basket of the Enterprise Model B Calcium Gas Outfit, pour in water, put a few ounces of ether or 88° test gasoline into the saturator and

## YOUR GASES ARE READY

**OXYLITHE AND OXONE** are both made from practically the same combination of chemicals, but Oxylithe is made in France and the chemicals are compressed into cakes, while Oxone is made in the United States and the chemicals are fused into cakes by the electrolytic process.

The Oxone cakes differ from the Oxylithe in that they are much harder, a little lighter and do not break or crumble in shipment. The Oxylithe cakes are completely consumed in the making of the gas while the Oxone leaves some residue. Both chemicals are put up in sealed tin boxes, the Oxylithe weighing about 2½ pounds and the Oxone about 2½ pounds per box. Either chemical will produce approximately six cubic feet of 99 per cent Pure Oxygen Gas which is equal in illuminating power to between seven and eight feet of tank or chlorate gas owing to the 15 per cent of impurities in the latter which are non-combustible, and reduce the intensity of the illumination in greater proportion.

One Box of either Oxylithe or Oxone will produce gas enough for an exhibition of over one and one-half hours when using a jet of medium bore.

**NOTHING IS GAINED** as some suppose by high pressure on the gases. While the maximum pressure of gases stored in steel tanks is 250 pounds, it is well known that the gas may be used to the last pound with equal results, as the pressure actually required at the tip of the jet does not exceed one pound. The Enterprise Model B Calcium Gas Outfit gives a uniform pressure of about 6 pounds to the square inch.

As to the Relative Merits of Oxylithe and Oxone, We Recommend Both

## You Try Both and be Your Own Judge

Oxylithe, per box .....	\$1.35
Oxone, per box .....	1.35

We recommend our New Improved Perfect Combustion Non-Pop Calcium Jet for the best results with the Calcium Light.

225 DEARBORN ST., CHICAGO, ILL.



**Steel Cylinders for Calcium Light Gases.** We handle only the Scaife Cylinders. They are made from the best quality of steel for this class of work, are tested to 600 pounds pressure and are fully guaranteed. The oxygen tanks are painted red, the hydrogen tanks black, capacity figured at 225 pounds pressure.

Capacity	Size	Weight	Price
15 feet	8x30 inches	38 pounds.....	\$17.50
25 feet	10x34 inches	65 pounds.....	18.75
50 feet	12x48 inches	95 pounds.....	22.50

## A List of Dealers in Compressed Gases in Tanks

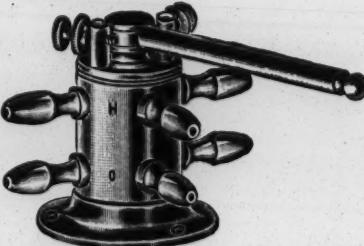
Will be furnished to those who are interested. Dealers are located in most of the principal cities.

The customary charge for compressed gases in tanks is \$5.50 for 50 feet each of oxygen and hydrogen, freight, express and cartage extra. 50 feet is sufficient to last for from five to seven entertainments of one and one-half hours each.

If interested write for list.

## Dissolving Keys

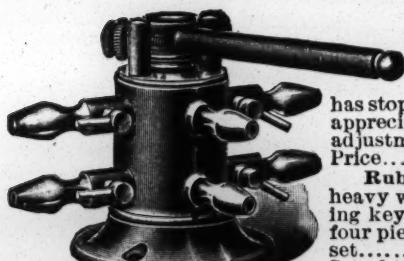
**The "Roe" Low Pressure Dissolving Key No. 1 for Calcium Light Gases.** This key is suitable for use with gas furnished in tanks, or with any portable calcium light and gas making apparatus. The valve in this key is very carefully fitted, and ground—a feature that is absolutely indispensable to satisfactory results. It is provided with screw adjustment with check nuts, is well finished, polished and nickel plated.



Price. .... \$10.00

**FOR DISSOLVING WORK** with Oxy-Hydrogen gas don't fail to use the "Non Pop" Calcium Jets and especially if you are using a gas making outfit. The "Non Pop" Jets give results that cannot be had with any other.

CHICAGO PROJECTING CO.



**"Roc" Low Pressure Dissolving Key No. 2,** with stop cocks for calcium light gases. This key is the same as the No. 1 except that it has stop cocks, a convenience that is appreciated for securing the proper adjustment of the gases.

Price..... \$15.00

**Rubber Tubing**, extra quality, heavy weight, for connecting dissolving key to two stereopticons, set of four pieces,  $2\frac{1}{4}$  feet each. Price, per set..... \$1.00

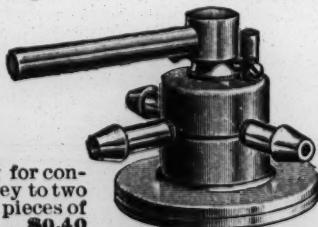
Set of two pieces, 5 feet each to connect key to tank. Price per set..... \$1.00  
Per foot..... .10

**High Pressure Dissolving Key for Calcium Light Gases.** (Not illustrated.) The construction of a calcium light key for use with gases under high pressure requires the highest grade of mechanical skill, together with the greatest care in design, workmanship, etc. These conditions have all been met in the new high pressure key. With this key it is possible to keep the gases properly adjusted and under perfect control from the beginning to the close of the exhibition. Complete with high pressure hose and couplings. Price..... \$30.00

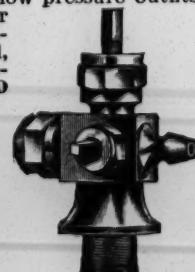
**"Roc" Acetylene Dissolving Key.** The object of this key is to provide a means of doing dissolving work with two stereopticons in combination with a single acetylene generator and two burners. This key is carefully fitted, well finished, polished and nickel plated.

Price..... \$4.50

**Rubber Tubing** for connecting dissolving key to two lanterns, set of two pieces of two feet each..... \$0.40



**Automatic Pressure Regulators.** These regulators automatically control the pressure of calcium light gases from cylinders, and maintain a uniform pressure, whether the cylinders are full or nearly empty. When using gases from cylinders, by using the automatic pressure regulator with low pressure key, results like those produced by a high pressure key are obtained. These regulators are not necessary when using low pressure outfits such as the Oxyline or Oxone gas making outfits. Carefully finished, polished and nickel plated. Price per pr. \$15.00



**Patent Valve** for high pressure calcium light cylinders. Having two needles, the equilibrium of the gases is easily accomplished. The side spindle is for fine adjustment, and the flow from the cylinder is controlled by the main or top needle. This enables the operator to make his adjustments before the entertainment begins, thus avoiding all annoyance in this direction after the audience is seated. Price..... \$5.00

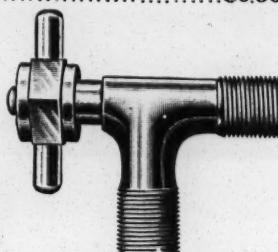
225 DEARBORN ST., CHICAGO, ILL.



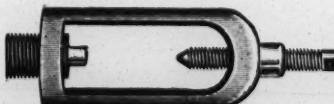
Regulating Needle  
Valve

**Regulating Needle Valves.** A desirable attachment for those using calcium gases from cylinders. The regulating needle has fine threads which enables the operator to secure a speedy and perfect adjustment of the gases. This valve is finished throughout in the best possible manner and nickel plated.

<b>One Way Regulating Needle Valves.</b>	
Price per pair.....	\$4.00
<b>Two Way Regulating Needle Valves.</b>	
Price per pair.....	\$6.50

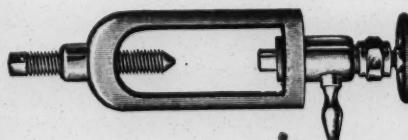


Coupling for Cylinder.



**Cylinder Clamp with Connec-**  
tion. Polished and nickel plated.  
Price, each.....\$1.25

**Cylinder Clamp and Hand Regulator, combined** This Regulator is of the same quality as the one way valve. Finished in the best manner throughout and nickel plated.  
Price, each.....\$5.50



**Coupling.** used to connect rubber hose to gas cylinder. Price, each.....\$0.50

**Bushings,** for use on calcium light cylinders when the threads become so much worn that they are unreliable. Nickel plated. Price ea.\$0.50




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**Outfit all Right.** GENTLEMEN:—I received the outfit and it is all right. You may look for my future orders.  
J. H. M., Silver Creek, N. Y.

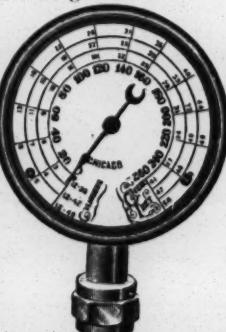
CHICAGO PROJECTING CO.

**Pressure Gauge.**



To those who use gases from cylinders, a Pressure Gauge is a very necessary instrument. The operator should always know before beginning an entertainment, that his cylinders contain sufficient gas to see him safely through, otherwise he might be subjected to the humility of having to dismiss his audience abruptly, owing to a deficiency of gas. The pressure gauge is also valuable for measuring the amount of gas received from the calcium light companies, to see that full measure is received.

**Pressure Gauge No. 1**, for indicating the pounds pressure only.....\$4.00



**Pressure Gauge No. 3**

**Pressure Gauge No. 2**, for indicating both the pounds pressure and cubic feet in 12 x 48 cylinders.....\$5.00

**Pressure Gauge No. 3**, for indicating the pounds pressure and cubic feet in cylinders 12 x 36, 12 x 42 and 12 x 48. Price.....\$6.00

**Improved Calcium Light Jets.**

While calcium light, by reason of its great efficiency, reliability, portability, and convenience, has in the past, been the leader in illuminants and a most faithful servant to the optical projectionist, recent developments in the line of patented improved calcium jets promise to expand its field of usefulness to a wonderful and unexpected degree.

In this catalogue is listed, for the first time in the history of the optical projection business, a line of improved calcium light jets, which for efficiency, reliability, convenience and artistic merit, is nothing short of a revelation in several ways. There is probably not another instrument in the optical projection line where it has been possible to bring about greater results in the way of better pictures than by improvements in the calcium jets. The opportunity for improvement has been taken full advantage of, and radical departures have been made from the stereotyped, awkward jets to which the public have been accustomed in the past, and our new line is equipped with improvements that are absolutely original and new, as must be plainly recognized by any one who will take the pains to compare our line with the jets of other makers.

Foremost among the improvements embodied in our new line of calcium jets, is the patented "Non-Pop" nozzle, which is furnished in two forms, either of which, besides securing better combustion, hence greater efficiency, positively prevents popping at the jet, which is especially annoying and happens more frequently when using gas making outfits. With the "Non-Pop" nozzle large quantities of gas may be used, thus obtaining the maximum illumination without the possibility of popping or other unsatisfactory results. While either of our "Non-Pop" nozzles is a phenomenal improvement over the other types of jets, the Cone type of "Non-Pop" nozzle is to be preferred, by reason of the advantages gained in its form of construction. Both of these "Non-Pop" nozzles are fully protected by U. S. patents applied for, and infringers on these rights will be vigorously prosecuted.

225 DEARBORN ST., CHICAGO, ILL.

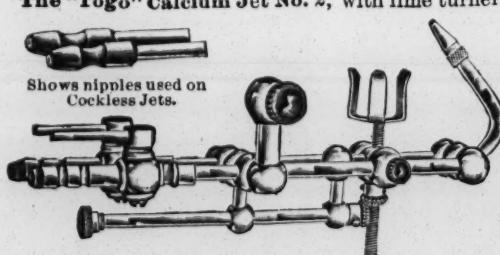
Another radical departure in our line of jets is the "turned ball" type of mountings, in which form they take a better finish, are easier to keep clean and with their well proportioned and symmetrical arrangement are neat and artistic beyond description.

Prominent among the new features is that every one of our new jets is made with the assistance of very expensive specially made jigs and tools, that are true to the thousandth part of an inch, and by the use of these invaluable accessories, instead of depending on ordinary machinery, the jets are perfect in construction and can be depended upon to be uniform, to work smoothly, easy and with certainty.

Other important improvements are the screw adjustment, the perfect mixing chamber for mixing the gases, needle valves instead of stop cocks, tubular bearings on the cross heads and the off-set nipples, none of which improvements are to be found in any other line of jets.

The "Togo" Calcium Jet is without question the best low-priced jet on the market. While it is not equipped with the "Non-Pop" Nozzle, a mixing chamber and other desirable improvements to be found in the "Roco Special" and "Roco Premier" it is well made, has the ball type of mountings and is nickel plated.

The "Togo" Calcium Jet No. 1, without lime turner. Price.....\$4.00  
The "Togo" Calcium Jet No. 2, with lime turner. Price.....\$5.00



Always Use  
"NON  
POP"  
JETS  
With  
Gas Making  
Outfits

The "Roc Special" Calcium Jets, are intended to take the place of and are a very great improvement over the Perfection jet formerly listed by us. It has two tubes running its entire length, has the ball type of mountings, a modified form of mixer, for mixing the gases, is strong and rigid, and is full nickel plated. Nos. 2 and 3 are provided with the patent "Multi Non Pop" Nozzle, which has a series of small holes for the escape of the gas, that absolutely prevents the flame from snapping back into the jet, as it will do under certain conditions when using a Sectional View patented "Non-Pop Multi" Nozzle.



The "Roc Special" Calcium Jet No. 1, with lime turner and plain single hole nozzle. Each.....\$7.00  
The "Roc Special" Calcium Jet No. 2, with lime turner, tube mixer, and patent "Multi Non Pop" Nozzle. Each.....\$8.00  
The "Roc Special" Calcium Jet No. 3, with lime turner, tube mixer, patent "Multi Non Pop" Nozzle and cocks. Each.....\$9.00

CHICAGO PROJECTING CO.

**"Roc Premier" Calcium Jet.**



Sectional view of "Cone Non-Pop" Nozzle.

No. D

The "Roc Premier" represents the highest degree of development and the most perfect calcium jet ever produced. It has every practical convenience and adjustment necessary to

the greatest possible efficiency. The most prominent feature in this new jet is the "Cone Non-Pop" nozzle which absolutely prevents popping, and at the same time affords better combustion, hence greater illumination. Both of these advantages are hailed with delight by experienced exhibitors. Different sizes of cones makes it possible to regulate the quantity of gas to suit individual requirements. The consumption of gas per hour with Cone No. 1 is about three feet, No. 2 about four feet, and No. 3 about six feet. Larger sizes made to order.

Unless otherwise ordered we will furnish the No. 2 cone.

A feature of great value in this jet is the **Perfection Mixing Chamber**, an arrangement which insures the perfect mixing of the two gases, hence, perfect combustion, and the greatest possible intensity of illumination. A **screw adjustment** for adjusting the distance between the lime and the point of the jet is another special feature of the "Roc Premier" and is alone the means of placing this jet a long way ahead of anything else on the market. The screw adjustment, which is mounted on the lime turner shaft, insures a steady and positive movement of the lime, and it is sure to remain where it is placed. By the use of this handy device, it is possible to secure a perfect and positive adjustment of the lime without the necessity of exposing the hand to the heat of the inside of the lamphouse.

**Needle Valves** is another excellent feature to be found in no jet other than the "Roc Premier" No. D. By their use a finer adjustment of the gases may be secured with the greatest ease and certainty, and after the adjustments are secured there is no danger of their being changed by an accidental knock, as with stop cocks.

**Long Tubular Bearings** to the cross head and other mountings, are a great improvement, which insures the smooth and easy working of all parts without chafing or cramping.

**Take it all in all**, this Jet possesses so many points of merit, that those who are interested in securing the best results with the greatest comfort in operating, cannot afford to consider any other.

**PRICES.**

"Roc Premier" Calcium Jet No. A, with lime turner, Perfection Gas Mixer, screw lime adjustment, plain single hole tip, each.	\$9.50
"Roc Premier" Calcium Jet No. B, lime turner, Perfection Gas Mixer, screw lime adjustment. Patent Cone "Non Pop" Nozzle	10.50
"Roc Premier" Calcium Jet No. C, with lime turner, Perfection Gas Mixer, screw lime adjustment, patent Cone "Non Pop" Nozzle and stop cocks.....	\$11.50
"Roc Premier" Calcium Jet No. D, with lime turner, Perfection Gas Mixer, screw lime adjustment, patent Cone "Non Pop" Nozzle and needle valves.....	\$12.00
Extra Nozzles, plain single hole, No. 1, 2 or 3, for No. A only, ea.	1.25
Extra "Cones," for patent "Non Pop" Cone Nozzle, each.	1.50

225 DEARBORN ST., CHICAGO, ILL.

## Fireproof Floor Magazines FOR MOTION PICTURE MACHINES

The object of this magazine is to provide a fireproof and dust proof receptacle into which the film may be deposited after passing through the machine, instead of using a take-up. It also provides a solid support for the Motion Picture Machine.

It is made of heavy galvanized iron, has a spring trap in the top through which the film passes and which may be instantly closed by a spring trigger. It has a large side door, which is held in place by spring hinges and a spring catch.

This magazine is constructed with great care, and has been designed to meet all of the requirements of those cities which have strict fire insurance regulations, and other restrictions in the way of city ordinances, etc.

Weight, net about 35 lbs. Weight crated for shipment, about 50 lbs.

**Certificate of Inspection** from the city electrician of Chicago, when desired, extra \$1.00.

### PRICES

**The "A. C. R." Floor Magazine** for Motion Picture Machine, as described above, crated for shipment. Price.....\$10.00

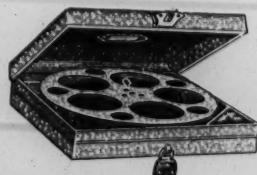


**Collapsible Stand** with tubular telescopic extension legs for stereopticon or motion picture machine. Has polished hard wood top, is rigid, strong and durable. Legs are nickel plated. Height with legs extended about 40 inches; with legs telescoped about 23 inches. Price.....\$8.00

**Film Case** to hold 8 or 10 inch reels. Has sponge compartment to keep the film moist and pliable. Is finished in Japan, has handle and lock and key.

**No. 1 Film Case**, to hold one reel, each.....\$1.50

**No. 2 Film Case**, to hold two reels, each.....\$2.00



CHICAGO PROJECTING Co.

## The Professional Film Rental Winder No. 1



**The Professional Film Rental Winder No. 1** is designed especially for the use of the Film Rental Agency, but will be found a profitable addition to the equipment of every up-to-date Motion Picture Theatre. It consists of two strong frames of artistic design, mounted on a neat oak base board, both frames have steel spindles, and interchangeable phosphor bronze bushings.

One frame has a high power winding gear and a balanced ball crank handle. The gears are of good dimensions, and are carefully and accurately cut. The crank is strong and well finished. The speed is about three to one. The gear frame is also provided with a grooved pulley to which an electric motor may be attached when desired.

The other frame has a flat pulley and a flat leather belt or strap to act as a brake, by which the reels may be stopped instantly by the foot.

The frames are finished in black enamel, decorated with artistic striping, and provided with nickel plated spring plunger oil cups. The gears, pulleys, etc., are unusually well finished and are nickel plated.

**From an Economical Viewpoint** the Professional Film Rental Winder will be found an excellent investment, because it should return its cost several times per year in labor saved, besides the saving on purchases of cheap film winders that soon wear out. All parts of the Professional Winder, besides being of high grade material and exceptionally well made, are interchangeable and may be replaced when worn. The Professional Rewind must be seen to be appreciated.

### PRICES.

**Professional Film Rental Winder, without reels..... \$16.00**

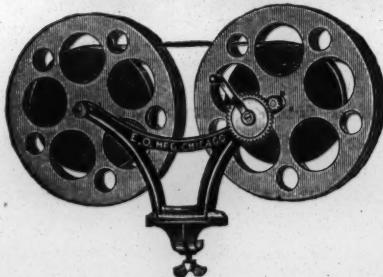
**Electric Motor of Fine Quality,  $\frac{1}{6}$  H. P., with starting box for  
110 volt direct current..... 28.00**

**Electric Motor of Fine Quality,  $\frac{1}{6}$  H. P., with starting box for  
220 volt direct current..... 30.50**

Prices for alternating current furnished on application.

225 DEARBORN ST., CHICAGO, ILL.

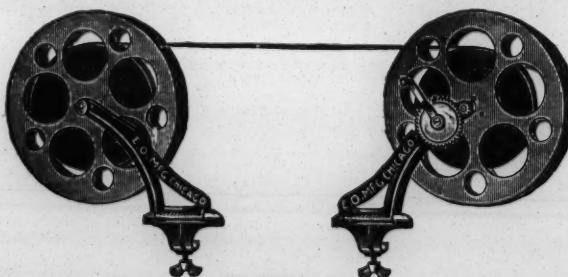
## THE "TOGO" FILM WINDER



No. 1

The "Togo" Film Winder is a most convenient accessory for rewinding and the repairing of films, and should be included as a part of the outfit of every Motion Picture exhibitor. The "Togo" Film Winder is made in two styles, viz: No. 1, which has a single frame, and No. 2, which is divided into two frames and is better adapted to repairing than the No. 1. Both styles are artistic in design, strong, and are unusually well made. They are provided with a thumb screw clamp, with which to

attach them quickly to a table, bench or shelf, besides which they each have two slots for bolts or wood screws. The frames are finished



No. 2

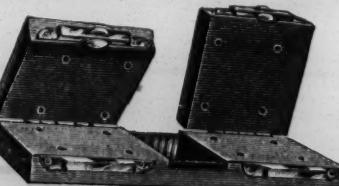
in black japan and the gears and fitting are nickel plated. They take any standard reel up to ten inch.

### PRICES

"Togo" Film Rewind, Style No. 1.....	\$3.00
"Togo" Film Rewind, Two Separate Frames, Style No. 2.....	\$5.00

**Film Mender.** To mend or splice films with ease, accuracy and speed a Film Mender is indispensable. It has metal projections for properly locating the films between the clamps and a glass plate to prevent the cement from sticking the film to the mender. Made of hard wood with nickel plated trimmings.

Price.....\$2.00

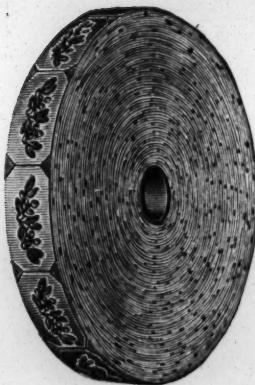


**Film Cement**, for mending or splicing Moving Picture Films. Scrape the emulsion from the film where it is to be joined, scrape the polished surface of the other piece, apply cement to each part, attach the parts to their proper position, clamp it and allow it to remain for about half an hour. Price per bottle.....\$0.25

**Blank Film**, for mending or attaching Motion Picture Films together. Blank film, opaque or transparent, Per foot.....\$0.10



CHICAGO PROJECTING CO.

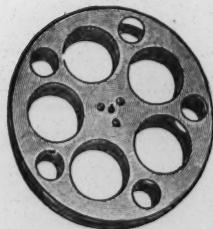


## Admission Tickets

**Roll Tickets**, numbered consecutively, per roll of 2,000 ..... \$0.75

**Roll Ticket Holder**, made of metal, each..... \$1.20

## • The Enterprise Universal Reel • For Motion Picture Machines



**THE ENTERPRISE REEL** is universal, being made to fit all standard motion picture machines. It is ten inches in diameter, holds one thousand feet of film, is made of a fine quality of cold rolled steel, carefully straightened, has the edges rounded, the corners of the openings rounded and is nickel plated. These reels are unusually well finished and must not be compared for price with the rough thrown-together class of reels that have been made without regard for the care or safety of the films that are to be used on them.

The spool is well finished and polished, has flat steel spring film clamp attached in the middle and set into the wood to allow the film to be wound in either direction and to avoid throwing the reel out of balance. All in all it is a superior reel.

### PRICE

**Enterprise Universal Reel**, 10-inch, each ..... \$1.00

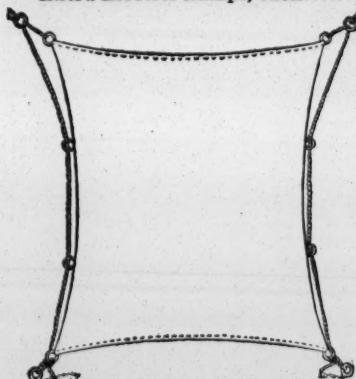
225 DEARBORN ST., CHICAGO, ILL.

**Electric Flash Signal Box.**  
This box fills a much felt want in furnishing a noiseless, yet reliable means of communication between the lecturer and the operator to indicate when the next slide is to be shown. The reel contains 125 feet of flexible insulated electric cord, and when this is unrolled from the reel, the box may be in the operators' booth, while the lecturer holds the handle at the other end of the cord, and gives the signals by pressing a button which flashes a miniature electric lamp in the box.

Price, with three cell battery and two electric lamps.....\$8.00



Extra Three-Cell Batteries.....\$0.50  
Extra Electric Lamps, each.....\$.50



**Screens for Motion Picture and Stereopticon Use.** Our screens are made of the best quality of closely woven, fine white muslin, a feature which is necessary to the best results in the picture. They are provided with ropes extending across two ends, and projecting from the corners. They have loops between the corners on two sides.

Screens 8 ft. square.....	\$ 2.50
" 10 ft. "	4.00
" 12 ft. "	5.00
" 15 ft. "	7.00
" 18 ft. "	9.00
" 20 ft. "	12.00
" 24 ft. "	14.00
" 30 ft. "	20.00

**Note**—A convenient means for hanging screens is to provide four screw eyes, two of which may be screwed into the wall or window frame, one on each side of the screen, and the other two on the floor on each side.

**Screw Eyes**, large and strong, for supporting screens. Price per set of four.....\$0.25



**Metal Pulleys**, used as an auxiliary in hanging screens. They prevent wearing of the rope, and make it easier to get the screen properly stretched. Price each.....\$0.10

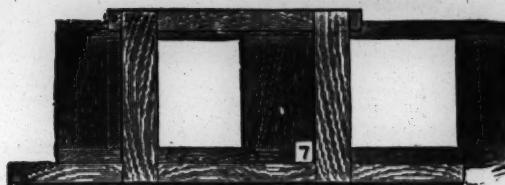
**Opaque Screens on Spring Rollers.** These screens are opaque, having dead white finish, and are highly recommended for Nickel Theaters, Lodges, Schools, etc. They are not so satisfactory for traveling exhibitors, owing to the difficulty in transporting them. These screens can be filled from stock up to and including 12 feet square.

**Enamelled Opaque Screen on Spring Roller.** 6 ft. square....\$ 4.00  
" " " " " " 8 ft. square.... 8.00  
" " " " " " 10 ft. square.... 18.00  
" " " " " " 12 ft. square.... 20.00

**Screen Rope.** Best quality sash cord. Very strong, and will not stretch. Per skein of 100 feet, price.....\$1.00

CHICAGO PROJECTING CO.

**Slide Carriers.**



**Double Slide Carrier No. 1.** For single stereopticon, adapted for American Slides only.  
Price ..... \$0.50  
**Double Slide Carrier No. 2.** with brackets and cushions. This carrier is the same as the No. 1, with the exception that it has brackets for locating it in the lantern, and cushions which make it possible to change views instantly without noise, thus making a substitute for a dissolving lantern. Price ..... \$0.80

**Double Slide Carrier No. 3.** for Single Stereoptican. Instead of having one groove as in the No. 1, it has two grooves side by side, one for the English and the other for American slides. Is convenient when exhibiting a mixed lot of slides. Price ..... \$0.75

**Shutter Slide Carrier,** for both American and English slides. Is especially adapted for the double lantern. Is similar in form to the double slide carrier, but has a metal diaphragm in one side, and is intended to carry a piece of opaque material or a ground glass in the other. Price each ..... \$1.25 Per pair ..... \$2.25

**"Panorama" or "Push Through" Slide Carrier,** for Single Stereopticon. Suitable for both English and American slides. This carrier can be used for showing Panoramic effects. Price ..... \$0.50



Adjustable Slide Carrier.

**Carrier,** for Dissolving Stereopticon. Adapted for both English and American slides. This is the most convenient and popular form of slide carrier for use with a dissolving lantern. Has a metal pull for withdrawing the slide. Price, each \$2.00

**Adjustable Slide Carrier,** for Dissolving Stereopticon. Adapted for both English and American slides. Adjustment is secured with a screw. Price ..... \$0.50



Self Centering Slide Carrier.

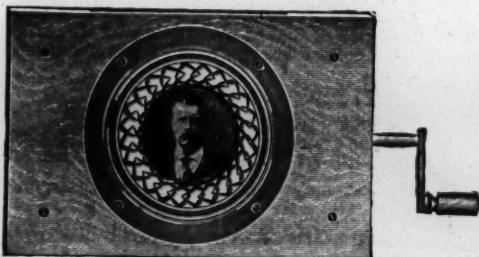


**Glass Cell.** Measures 4x7 inches, and fits into the slide stage of any lantern using standard slides. It can be used dry to hold views, or may be filled with water to show live specimens of insects, fishes, worms, etc., enlarged views of which may be projected on the screen with the Stereopticon or Magic Lantern. Price ..... \$3.00

225 DEARBORN ST., CHICAGO, ILL.

# THE "A. C. R." IMPROVED INTERCHANGEABLE CHROMATROPE

With Detachable Handle.



Chromatropes are suitable and very desirable for the opening, intermission and closing of a Stereopticon and Motion Picture Entertainment and especially for announcements for Nickelodeons and Five Cent Theatres. The Chromatrope effect is produced by two

circular discs of glass, each one having painted upon them curious geometrical designs in a variety of brilliant colors. By turning the crank the two discs are rotated in opposite directions which produces a mysterious and very beautiful effect that must be seen to be appreciated.

Until the present time all chromatropes have been imported and the great majority have been of cheap construction, the mechanical parts being poorly made, and hard to operate, the designs were rough



No. 1



Design Slide



No. 2

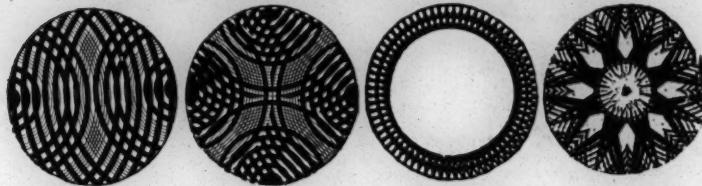
and not uniform and the cranks permanently attached which made them very inconvenient of transportation, besides which a complete chromatope was required for each design. We are now able to offer an American-made chromatope with both mechanical parts and the glasses finished in the best American Style.

They have detachable cranks and both the color discs and announcement or design slides are interchangeable.

The announcement or design slide is changed by lifting out the  $3\frac{1}{4} \times 3\frac{1}{4}$  slide and substituting another. Another important feature is

CHICAGO PROJECTING CO.

**Interchangeable Chromatropes—Continued.**



No. 6

No. 7

No. 3

No. 8

that they may be had in a neat cloth covered wooden case with sufficient room for the entire series of color discs and eight announcements or design slides.

**.... PRICES ....**

<b>Chromatope</b> with one pair of geometrical color discs, choice of Nos. 1, 2, 3, 6, 7 or 8, including crank.....	<b>\$3.00</b>
Geometrical Color Discs, Nos. 1, 2, 3, 6, 7 or 8, per pair.....	<b>\$1.50</b>

The two geometrical color discs may be changed in less than one minute.

**Design Slides for Chromatropes.**

Size $3\frac{1}{4} \times 3\frac{1}{4}$ inches, hand colored. Price each.....	<b>\$0.60</b>
---	---------------

Welcome	American Flag	McKinley
Intermission	Washington	Cleveland
Good Night	Lincoln	Bryan
	Roosevelt	

**Note:** To avoid monotony it is desirable when showing several design slides to have a few changes of color discs.

<b>Design Slides</b> to order from copy furnished, colored each.....	<b>\$1.00</b>
Motion Sets consisting of two discs and one $3\frac{1}{4} \times 3\frac{1}{4}$ inch design slide, hand colored, any subject in following list per set.....	<b>2.00</b>

a A pretty woodland spot, a beehive in foreground, myriads of bees swarming around.

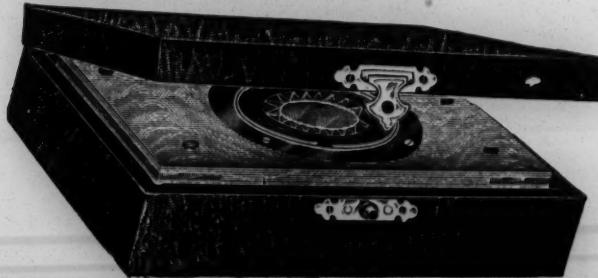
b On a table an aquarium globe rests, in which fish are seen swimming.

c A fountain playing.

d Windmill, arms moving, border of weaving colors.

e Acrobat performing on a trapeze.

f Good-Night, with border of weaving colors.



<b>Chromatope Case</b> , cloth covered and cotton flannel lined, cushion pad and nickel plated catch, each.....	<b>\$1.00</b>
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225 DEARBORN ST., CHICAGO, ILL.

## THEATRE ANNOUNCEMENT SLIDES FOR USE WITH THE "A. C. R." INTERCHANGEABLE CHROMATROPE

Size 3 $\frac{1}{4}$  x 3 $\frac{1}{4}$  Inches



The combination of a Theatre Announcement with a Chromatrope is new and novel. It produces a mysterious and very pretty effect and makes a hit wherever shown. The announcements are on separate slides bound in the regular manner in combination with cover glasses. Changes from one announcement to the other be as quickly made.

- No. 1 C—Gentlemen and ladies will please remove their hats. No smoking.  
No. 2 C—We cordially invite the people of the city to our entertainments.  
No. 3 C—No pictures will be shown that are not high class and morally clean.  
No. 4 C—Ladies please remove your hats.  
No. 5 C—Gentlemen please remove your hats.  
No. 6 C—If our show pleases you, tell your friends. If not, tell us.  
No. 7 C—Gentlemen please remove your hats. No smoking.  
No. 8 C—Those who have not seen the entire performance may remain for the next show.  
No. 9 C—Those who came in late are cordially invited to remain for the next performance.  
No. 10 C—We cordially invite ladies and children to this theatre. No pictures will be shown that can possibly offend the most refined tastes.  
No. 11 C—Our illustrated songs and moving pictures are the best.  
No. 12 C—Positively no smoking.  
No. 13 C—Please do not smoke or spit on the floor.  
No. 14 C—Our program will be changed Monday and Thursday.  
No. 15 C—Our program will be changed Wednesday and Sunday.  
No. 16 C—Our program will be changed Tuesday and Friday.  
No. 17 C—Our program will be changed Monday, Wednesday and Friday.  
No. 18 C—Our program will be changed Sunday, Tuesday, Thursday and Saturday.  
No. 19 C—Our program will be changed Sunday, Tuesday, and Friday.  
No. 20 C—Our program will be changed Sunday, Tuesday and Thursday.  
No. 21 C—Our program will be changed Monday, Wednesday and Saturday.  
No. 22 C—We change our program Wednesday and Saturday.  
No. 23 C—We change our program three times a week.  
No. 24 C—We change our program every day.  
No. 25 C—Change of program to-morrow.

Prices of Chromatrope Announcement Slides.	
CHROMATROPE ANNOUNCEMENT SLIDES, with black backgrounds and white letters, each.....	\$0.30
With black backgrounds and tinted letters, all one color, each....	\$0.40
With black backgrounds and tinted letters, variegated colors, very artistic, each.....	\$0.50
MADE TO ORDER from copy furnished, with black background and white letters, each.....	\$0.60
With black backgrounds and tinted letters, one color, each.....	\$0.85
With black backgrounds, and tinted letters, variegated colors, each.....	\$1.00
NOTE: When copy is furnished us it must be of such form as to be used without resetting. Copy set in type by us will be charged extra in addition to cost of slide, each.....	\$1.00
Lettering by Hand will be charged for extra per word.....	\$0.01 $\frac{1}{2}$

CHICAGO PROJECTING CO.

## Special Announcement Slides For Motion Picture Theatres

SIZE 3 $\frac{1}{4}$  x 4 INCHES, COVERED AND BOUND

The following list covers every subject in Announcement Slides that may be used to advantage in a Motion Picture Theatre. They are neat and attractive and will be found a great convenience. We furnish them in three styles as follows:

### PRICES

ANNOUNCEMENT SLIDES, Style A, white letters on black background, each.....	\$0.25
ANNOUNCEMENT SLIDES, Style B, tinted letters, single color on black background, each.....	\$0.35
ANNOUNCEMENT SLIDES, Style C, tinted letters, variegated colors on black background, each.....	\$0.50

### Order by description and number.

- 1 No pictures will be shown that are not perfectly moral and clean.
- 2 If our show pleases you tell your friends, if not, tell us.
- 3 Ladies and gentlemen will please remove their hats.
- 4 Those who have not seen the entire performance may remain for the next show.
- 5 The next performance begins in five minutes; those coming in late will please remain.
- 6 Please do not smoke or spit on the floor.
- 7 We change our program Wednesday and Saturday.
- 8 Gentlemen, please remove your hats.
- 9 Gentlemen, please remove your hats, no smoking.
- 10 We cordially invite ladies and children to this theatre. No picture will be shown that can possibly offend the most refined taste.
- 11 Our program will be changed Sunday, Tuesday, Thursday and Saturday.
- 12 We change our program every day.
- 13 We change our program three times a week.
- 14 Our program will be changed Wednesday and Sunday.
- 15 Our program will be changed Monday and Thursday.
- 16 Change of program tomorrow.
- 17 Our program will be changed Sunday, Monday, Wednesday and Friday.
- 18 Our program will be changed Sunday, Tuesday and Thursday.
- 19 Our program will be changed Tuesday and Friday.
- 20 Our program will be changed Sunday, Tuesday and Friday.
- 21 Ladies, please remove your hats.
- 22 Positively no smoking.
- 23 Our illustrated songs and moving pictures are the best.
- 35 Those who came in late are cordially invited to remain for the next performance.
- 36 We cordially invite the people of the city to our entertainment.
- 37 Our program will be changed Monday, Wednesday and Saturday.
- 38 Our program will be changed Monday, Wednesday and Friday.
- 39 Our program will be changed Sunday, Monday, Wednesday and Saturday.



**Slide Marker.** A little larger and same shape as cut, gummed ready to stick on. Prevents error of putting in slides upside down; or wrong side to. Price per box. **\$0.10**

**Typewriter Bulletins.** For this purpose we furnish a very thin, transparent, flexible imported material cut into sheets of the standard size,  $3\frac{1}{4} \times 4$  inches. The announcement is written on this sheet with the typewriter, and afterwards sprinkled with a prepared powder to intensify the letters. This is then placed between two pieces of cover glass, bound with binding paper, and used in a lantern same as an ordinary slide. This method has been used with great success by Chicago newspapers for showing election returns, etc. Price per dozen **\$0.50** Per 100..... **\$2.50**

**Intensifying Powder,** for intensifying typewriter bulletins. Per package. .... **\$0.20**

**Tinters,** for throwing colored lights on tableaux, changing views to sunsets or moonlight scenes, etc. Of this we furnish two kinds. One is made of a sheet of colored gelatine between two cover glasses, and bound with binding paper, while the other is made from a lantern slide plate that has the sensitive silver salts removed, color applied to the emulsion, covered with glass and bound. The gelatine is affected by the heat and is not so durable as the colored glass.

**Tinters,** with gelatine colored sheet. Each. .... **\$0.15**  
**Tinters** Per set of ten different colors..... **1.50**

**Tinters,** made of colored lantern slide glass..... **.25**

**The "Handy" Slide Mount.** For the double purpose of protecting slides from breakage in transportation, and making them uniform in size with wood mounted slides. Consists of a wood frame about the thickness of the average slide, on each side of which is glued a mat of heavy manila paper, with the opening a little larger than the standard mat opening in the lantern slides.

Price in lots of less than 100, each..... **\$0.10**

In lots of 100 or more, per 100 ..... **8.00**

## Special Slide Work.

We have every facility for, and make a specialty of making lantern slides from photographs, newspaper prints, prints from books, drawings or chromos. Black and white prints make better slides than colored prints.

### PRICES.

**Slides to Order** uncolored  $3\frac{1}{4} \times 4$  inches, including negative to be made by us..... **\$0.50**

**Slides to Order** as above, extra quality, each..... **\$0.75**

**Slides to Order** uncolored  $3\frac{1}{4} \times 4$  inches from negative furnished us. **0.40**

**Slides to Order** as above, extra quality, each..... **0.55**

**Slides to Order** colored  $3\frac{1}{4} \times 4$  inches from negatives to be made by us, each..... **\$0.85 to 1.15**

**Coloring only,** per slide..... **0.40 to 0.75**

Copy written on typewriter will be charged for in addition to cost of slide, per slide..... **\$0.25**

**Copy Set in Typo by Us** will be charged for in addition to cost of slide, each..... **\$1.00**

**Lettering by Hand** on slides made by us will be charged for in addition to cost of slide per word..... **\$0.01 $\frac{1}{2}$**

**IMPORTANT:** To obtain the best results on slides colored to order, full written instructions as to colors desired for each individual slide should accompany all orders. Also state what price you wish to pay between 85c and \$1.15 for slide and coloring, or 40c and 75c for coloring only.

CHICAGO PROJECTING CO.

**Tools and Accessories.**

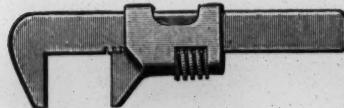


**Cylinder Wrench No. 1 for Use with Calcium Light Cylinders.** Made of drop forged steel 4 $\frac{1}{2}$  ins. long,  $\frac{3}{8}$  ins. thick, round corners, nickel-plated.

Price.....\$0.60

**Improved Cylinder Wrench No. 2.** This wrench is lighter and is considered an improvement over the No. 1. It fits on the spindles, couplings and attachments of the cylinders for calcium gases. Polished and nickel-plated.

Price.....\$0.75



**Adjustable Pocket Wrench No. 1.** A wrench of this type will be found almost indispensable to every exhibitor. It is made of drop forged steel and is adjustable by a milled thumb nut. Length,

5 $\frac{1}{2}$  inches, plated. Price.....\$0.25

**Adjustable Pocket Wrench No. 2.** This wrench is the same style as the No. 1 but is better made, finished with greater care, has fluted handles, and is nickel-plated and polished.

Price.....\$0.50



**Combination Gas Pliers and Lime Tongs.** A gas plier is a very convenient tool for the exhibitor. It is not only best adapted to handling the limes, but can be used to advantage for many other purposes. Each. \$0.65 Nickel-plated.....\$1.00

**Lime Tongs.** A convenient tool for removing limes from the box in which they are received and inserting them in calcium jet. Each.....\$0.75

**Combination Cutting and Flat Pliers.** This combination of a parallel flat plier with cutting pliers should be made a part of every exhibitor's outfit. The jaws are made of the best tool steel, while the handles are stamped from sheet steel making them both light in weight and comfortable to the hand. They are well finished, polished and full nickel-plated. Price.....\$1.00



Every exhibitor should be possessed of one of these tool sets. It may save several times its cost at any moment. It has an adjustable screw chuck for holding the tools. Price.....\$1.25

**Yankee Pocket Tool Set No. 2.** This tool set is similar to the No. 1, but is larger, and contains the following tools: Gimlet, reamer, two chisels, screw driver, two gouges, and a saw. Price .....\$1.50

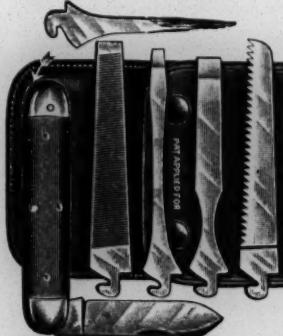
225 DEARBORN ST., CHICAGO, ILL.



**Magazine Screw Driver No. 1.**  
This little tool will be found of great convenience owing to the fact that it carries within the handle four blades of different sizes. The blades are made of the best tool steel, may be changed instantly, and when once in place are held securely by the screw collar. Length of handle, 3 ins., full nickel-plated. Price \$0.60

**B. & S. Magazine Screw Driver**

**No. 2.** The B. & S. Screw Driver No. 2 differs from the No. 1 in that the blades are pivoted to the handle instead of being loose, and are changed by raising the bolt and pressing forward the slide to the front end of the slot. It contains four blades of finest steel has metal handle with wood hand-piece, and is nickel plated. It is a little larger and heavier than the No. 1. Price.....\$1.35



**The Pocket Knife Tool Kit in Leather Case.** Any tool may be firmly attached to the pocket knife, as indicated by arrow, in one second by a simple backward wrist movement, and as quickly removed by a forward movement. This useful tool combines a knife blade, reamer, file, saw, chisel and screw driver, made of the best material, well finished and is a most convenient tool for the optical projectionist. Price complete with leather case, each.....\$2.25



**Oller.** No operator of a machine should be without an oil can. This one is especially adapted to the requirements of the motion picture exhibitor, in that it is flattened and compact. It is not necessary to keep it standing upright, as it has a screw cover to prevent spilling the oil. Nickel-plated. Price.....\$0.10



**Acetylene Burner Cleaner.** Owing to the tendency of Acetylene burners to clog up, the Acetylene Burner Cleaner should be in the possession of every exhibitor who uses acetylene gas. The opening in the acetylene burner being small, cannot be cleaned with a pin. This Cleaner has a fine steel point which is protected by a cap. Price. each.....\$0.25  
By mail.....\$0.30

**Smoked Spectacles,** good quality, for protection of the eyes when adjusting electric, arc, or calcium, or other illuminants, in case.....\$1.00

CHICAGO PROJECTING CO.

**Slide Boxes.**

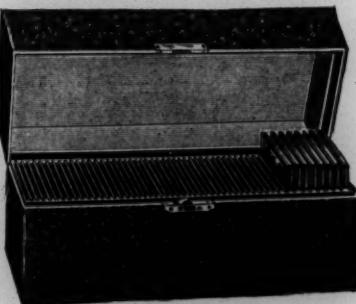


**Slide Box No. 1** Made of polished oak, extra strong, without partitions, has removable cover, held in place by strong safety catches, on the ends, cushioned top and bottom. As the slides are shown they are taken from one end, and when removed from the lantern are placed in the other end of the box, which brings the slides in their regular order for the next exhibition. Capacity 60 slides. Price.....\$1.00

**Slide Box No. 2** Same as No. 1, except that it has a capacity for 80 slides. Price, \$1.25

**Slide Box No. 3** Made of white wood, cloth covered, has partitions and nickel plated catch. Capacity 50 slides. Price. .... \$1.00

**Slide Box No. 4** Same as No. 3, but double width, capacity for 100 slides. Price.....\$2.00

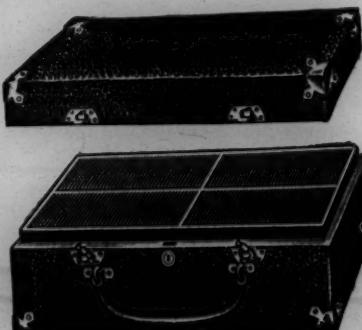


**Slide Box No. 5** This box is made of wood, well finished, cloth covered, has cardboard partitions and handle, and two well finished leather straps and has a capacity for 75 slides. Price ..... \$1.75

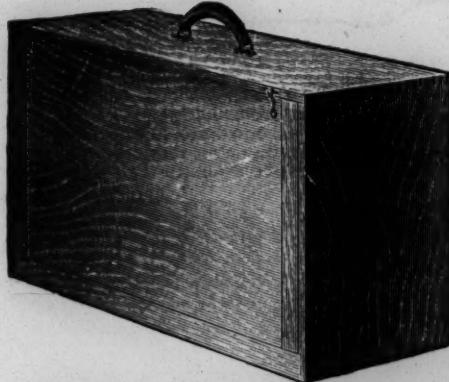
**The "Argo" Slide Box.** This is the strongest and most artistic slide box ever placed on the market. It is made of wood, finished with great care, has heavy grained covering, is padded top and bottom, has drop handle, metal clasp, lock and key, and slides separated by cardboard partitions.

**Argo No. 6,** capacity of 120 slides, separable cover....\$5.00

**Argo No. 7,** capacity 240 slides, cover hinged, spring catch.. ....\$6.00



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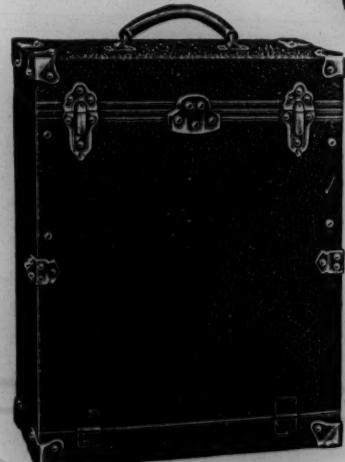
**Stereopticon Carrying Case**

**No. 2.** Same as No. 1 but is intended to carry a double dissolving lantern, motion picture mechanism and other accessories. Dimensions about 8x19x28 inches. Price.....\$3.65

**Stereopticon Carrying Case No. 3** is made in the style of a suit case and is the neatest and most artistic carrying case made. The body is of wood, the sides of heavy press board, covered with imitation alligator leather, reinforced corners, folding handle, gilt finished hasps and lock. The dimensions are nineteen inches

**Stereopticon Carrying Cases.**

**Stereopticon Carrying Case No. 1** is made of wood finished in the natural grain and has a capacity for one stereopticon, a motion picture mechanism and other accessories. It is provided with a strong leather handle, two catches and lock and key. The cover is on the side and is detachable. Dimensions about 9x15x29 inches. Price.....\$3.25



long by eighteen inches high by seven inches wide and the weight is but about eight pounds. It has a partition across the middle and will carry a single stereopticon, motion picture mechanism, etc., or two stereopticons. It is lined throughout with trunk lining. Price \$4.75

**Motion Picture Machine Carrying Case No. 1,** for the complete Optigraph Motion Picture Machine (except the rheostat). The body is made of wood, is covered and lined throughout and has strong handle. Is not included with the motion picture machine. Price .....\$5.00

**Motion Picture Mechanism Carrying Case No. 2,** for the Optigraph Mechanism, reels, take-up, stereopticon lens, etc. Price \$3.00

## CHICAGO PROJECTING CO.

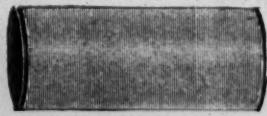


**Limes, for use in Calcium Light Jets.** We list only the best quality of limes, which are of the proper degree of hardness, and have the maximum of incandescent properties. They are put up in screw top cans containing one dozen each. The limes are packed in lime dust, in which condition they should be kept until used, to prevent the limes from slaking.

**Limes, size  $\frac{3}{4} \times 2$  inches, one dozen in can..... \$0.90**

**Limes, size  $1\frac{1}{4}$  inches diameter, reduced at one end to fit lime holder, in cans of one dozen. Price..... \$1.80**

**Limes in Glass Tubes,** especially adapted to the requirements of those who do not use limes often. By having each lime sealed in a glass tube there is no danger of slaking, and regardless of the length of time they are kept on hand, the limes will be found in perfect condition for use when wanted.



**Limes, sealed in glass, regular size, each..... \$0.15**

**Limes, sealed in glass, regular size, per dozen..... 1.25**

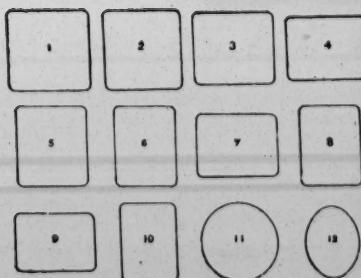


**Ether.** For use in saturators of Calcium Light Outfits. There are three grades of Ether and varying prices, but we handle only the best, as it is the cheapest in the long run. It is put up in sealed cans of one pound each. Per can..... \$1.00

**Lantern Slide Plates,** Sensitized,  $3\frac{1}{4} \times 4$  for making Lantern Slides, per package of 1 dozen ..... \$0.55

**Cover Glass,**  $3\frac{1}{4} \times 4$  inches, for covering lantern slide views, writing signs for advertising purposes, writing announcements for showing elections returns, etc. The glass may be written on with an ordinary pen and liquid India ink, and may be shown in the lantern same as ordinary slides. Per dozen..... \$0.25

## Black Paper Mats



**Black Paper Mats,**  $3\frac{1}{4} \times 4$  in. with bronze borders any size or style Nos. one to twelve, as per diagrams. Only one size in each dozen. Per dozen..... \$0.10

**Binding Papers,** for binding slides, black, gummed. Per 100..... \$0.20

**Liquid India Ink,** for writing announcements on glass. Per bottle..... \$0.25

**Pen,** hair line, for writing announcement on glass, with holder. Each..... \$0.05

225 DEARBORN ST., CHICAGO, ILL.

**We Supply**=====

**Theatre Chairs  
Electric Fans**

===== **and** =====

**Metal**

**• Operator's Booths •**



**If Interested Write us for  
SPECIAL PRICES**

CHICAGO PROJECTING CO.

## Sectional Electric Signs

These Signs are made of steel sections, which, after having been stamped to form, have been covered with a thick coating of porcelain, which makes them fire, rust and water-proof. The sign is so constructed that it affords complete protection to the electric wiring, and it has been approved by the Underwriters' National Electric Association.

These signs may be had either single or double face. The single face signs are intended to be placed against the front of the building, or in such other location as requires the sign to be read from a single direction only. The letters are in white porcelain, thickly studded with incandescent electric lamps. The ornamentation around the frame of the sign is also in white porcelain, while the background of letters and frame are of dark blue porcelain, making a very pleasing appearance.

The 16 inch letter has been adopted for this class of work. These signs are especially adapted for the requirements of Motion Picture Theatres, owing to the fact that they not only add to the illumination, but they may be read at a very great distance.

The prices quoted for double face signs include chains and necessary brackets for attaching and supporting them across the sidewalk. The letters are equipped with standard Edison base sockets, but prices quoted do not include lamps. It is customary for the local electric lighting company to furnish the lamps.



The above cut represents Style No. 1.

**Style No. 1 Sectional Electric Sign, Single Face**, including brackets, etc., necessary to place sign flat against the building, without lamps. Price.....\$77.53

**Style No. 1 Sectional Electric Sign**, Double Face, including chains, turnbuckles and all necessary hanging rig to support the sign across the sidewalk, without lamps. Price.....\$155.06

For Ten-Cent Theatre Signs \$8.00 should be added to above prices.

The size of sign No. 1 is 9 feet 6 inches x 4 feet.

Single Face Sign requires 76 lamps; Double Face Sign 152 lamps.

Style No. 1 is by far the most popular sign for Motion Picture Theatre use.

**Boxing**, extra, for Single or Double Face Sign. Price.....\$3.70

Weight of Single Face Sign, boxed, about 415 lbs.

Weight of Double Face Sign, boxed, about 669 lbs.

225 DEARBORN ST., CHICAGO, ILL.

## Electric Signs—Continued



Style No. 2 Sign differs from Style No. 1 in that the letters are all in a single line like No. 6, instead of having the characters "5c" placed above the others.

**Style No. 2 Sectional Electric Sign,** Single Face, including necessary hanging rig to place sign flat against the building, without lamps. Price.....\$72.00

**Style No. 2 Sectional Electric Sign,** Double Face, including chains and all necessary hanging rig, to support the sign across the sidewalk, without lamps Price.....\$144.00

Style No. 2 Sign is 11 feet 8 inches in length x 2 feet in height.

Single Face Sign requires 76 lamps, and the Double Face Sign 152 lamps.

**Boxing,** extra for Single or Double Face Sign. Price.....\$2.70

Weight of single faced sign, boxed, about 360 pounds.

Weight of double faced sign, boxed, about 600 pounds.

### CLASS B SECTIONAL SIGNS.

The Class B Signs are of the same size and similar in construction to the preceding signs, but instead of having embossed letter panels, they are flat, and the frames are plain.

**Style No. 6 Sectional Electric Sign,** with flat letter panels, single face, including all necessary hanging rig, to place sign flat against the building, without lamps or ornaments. Price.....\$42.00

**Style No. 6 Sectional Electric Sign,** with flat letter panels, double face, including all necessary hanging rig to support the sign across the sidewalk, without lamps or ornaments. Price.....\$84.00

Style No. 6 Sign, if in one line is 11 feet 8 inches long by 2 feet high.

Style No. 6½ is in two lines, similar to cut of style No. 1, and the length is 9 feet 6 inches by 4 feet high.

The single face sign requires 76 lamps, and the double face sign 152 lamps.

Ornaments, extra, per set of six, if desired. Price.....\$8.00

**Boxing,** extra, for single or double face sign. Price.....\$2.70

Weight of single faced sign, boxed, about 330 pounds.

Weight of double faced sign, boxed, about 540 pounds.

CHICAGO PROJECTING CO.

## Electric Signs—Continued



The electric border signs are provided with lamp sockets around the border but the lettered part is in one solid piece of sheet steel covered with porcelain. The letters are white and the background dark blue. These signs are made only to order and about three weeks will be required to make delivery.

**Style No. 12 Electric Border Sign**, single face, with 12 lamp sockets, size 30 x 66 over all, panel 18 x 54 inches, blue ground, white letters, complete including frame, one panel, and necessary brackets for attaching sign flat against the building, without lamps. Price ..... \$31.35

**Style No. 12 Electric Border Sign**, double face, with 12 lamp sockets on each side, complete including frame, panels, ten foot crane, swinging base, spear head, collar and small links, rosettes, turn buckles, and chain for supporting the sign across the sidewalk, without lamps. Price ..... \$53.35

Boxing, extra, for either of the above signs. Price ..... \$1.00

Weight of single faced sign, boxed, about 130 pounds.

Weight of double faced sign, boxed about 150 pounds.

**Prices on Vertical Signs** in any of the preceding styles will be quoted on application.

**IMPORTANT:**—Electric lamps for any of the preceding signs, 2 or 4 candle power, will be quoted on application. Lamps are usually furnished by the local electric light companies without charge while using their current. The 2 candle power lamps are most generally used. 8 of the 2 candle power lamps consume about the same amount of current as one 16 candle power lamp.

**Additional Information** regarding Electric Signs will be cheerfully furnished, and we solicit correspondence from those interested in the subject.

225 DEARBORN ST., CHICAGO, ILL.

## Weights of Outfits, Etc.

For the benefit of those who wish to know, we give the Approximate weights of our instruments, supplies, etc.

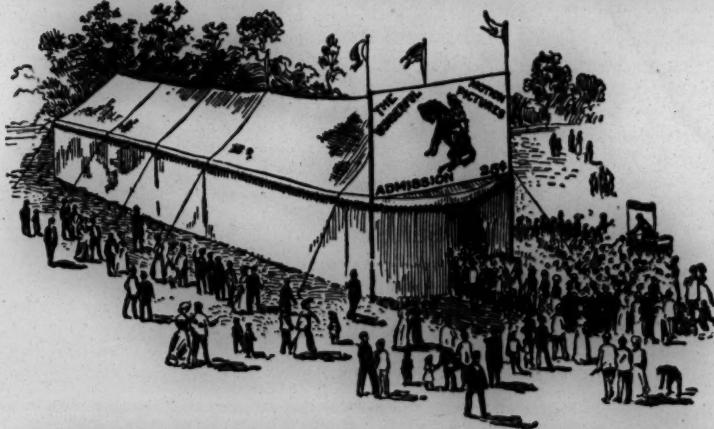
Complete Lecture Outfit with Carrying Case and

Posters, net.....	56	lbs.
Boxed, ready for shipment, about.....	80	"
Single Stereopticon with Case.....	24	"
Double Stereopticon with Carrying Case.....	34	"
Double Carrying Case, Wood.....	25	"
Single Carrying Case, Wood.....	17	"
Carrying Case No. 3, Suitcase Style.....	13	"
Single Stereopticon.....	10	"
Double Stereopticon.....	20	"
Sun Rival Light Outfit.....	9	"
" " " Boxed.....	15	"
Vapo Search Light Outfit, Boxed.....	3½	"
Acetylene Gas Outfit, Boxed.....	15	"
Optigraph, No. 3½.....	5	"
" No. 3½ Boxed.....	7	"
" No. 4.....	9	"
" No. 4 Boxed.....	11½	"
" No. 4 with Motion Picture Lamp House, Base Board, Lenses, etc.....	28½	"
Set of 52 Views in Case.....	8	"
Sliding Attachment.....	1½	"
500 Posters (18 x 24).....	18	"
2000 Tickets.....	3½	"
Excelsior Rheostat No. 1.....	5½	"
Screen, 12x12 feet.....	7½	"
Enterprise Calcium Light Outfit, Boxed, about.....	30	"
Tents for Motion Pictures, size 20x40, with poles and stakes, about.....	450	"



CHICAGO PROJECTING CO.

## Motion Picture Exhibition Tents.



The black canvas tent with black cotton flannel lining, has been designed especially to meet the requirements of motion picture and stereopticon exhibitors, who wish, during the summer time, to be entirely free from the renting of halls, etc., and especially for those who wish to give exhibitions at street fairs, picnics, county and state fairs, summer parks, etc. Being of double thickness and made of black material, it can be used for either day or evening entertainments. The outside of the tent is made of heavy black cotton duck or drill, and will shed the rain.

With a tent of this kind the exhibitor can stop for several days or weeks in the same town with the minimum of expense. He has no rent to pay, the tent always attracts attention, and is cooler than a building. The customary method when using a tent at fairs, etc., is to give short exhibitions of one-half hour each, making the admission appropriate to the locality. All of these tents are made up and roped in the regular showman's style, and nothing but good material and the best workmanship is used.

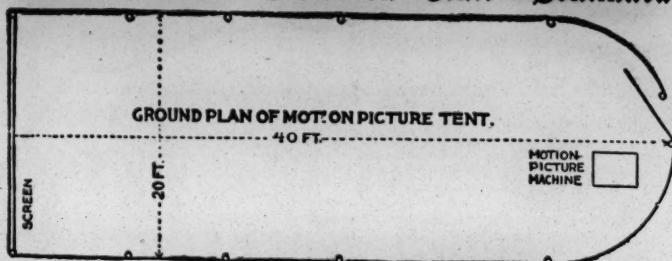
The banners and flags as shown above are not included at prices quoted on following page. We make to order any style or size of banner that may be desired. Prices on banners and flags will be furnished on application. In writing for prices on banners please state as clearly as possible what is wanted, or that you would like to have our opinion or advice in the matter.

As tents are made only to order, customers must send the full amount of cash. We cannot send them C.O.D., but we guarantee them to be exactly as represented. About a week will be required to fill orders.

The above cut gives a good general idea of the outside of the tent. On the following page will be found the ground plan, sizes and prices.

225 DEARBORN ST., CHICAGO, ILL.

## Motion Picture Exhibition Tents—Continued



Solid Black, and Red and Blue Striped.

Size of Tent, feet.	Height of Wall, feet.	Solid Black Unlined Tent.	Red and Blue Striped Un- lined Tent.	Lined all Through, Extra.	Poles and Stakes, Extra.
20 x 40 with 10 ft. Wall	"	\$ 96.68	\$ 113.00	\$ 63.45	\$ 13.90
20 x 50 "	10 "	121.33	141.42	79.05	16.00
20 x 60 "	10 "	144.05	167.62	92.60	17.50
20 x 70 "	10 "	160.75	187.07	103.05	21.45
24 x 40 "	10 "	109.45	127.32	70.50	14.65
24 x 54 "	10 "	142.41	165.89	91.50	17.25
30 x 60 "	10 "	153.50	178.65	104.55	19.70
30 x 70 "	10 "	175.60	204.20	110.25	21.20

**Special Tent** 10 ft. side wall in front and 11 ft. side wall in back  
**22 x 60 "** 165.75 193.50 107.10 23.35

The proportions of the "Special" Tent makes it possible to project a larger picture than with those having the ten foot wall all around.

For Solid Blue Tent, add ten per cent. to price quoted for solid black.

All of the above prices are for tents without "Inside Curtain and Sod Cloth" for which, if desired, add ten per cent. to prices quoted for unlined tent.

For Waterproofing Throughout with parafine add ten per cent. to prices quoted for solid black tents.

**Lower Prices** can be quoted on tents of a cheaper and lighter grade of material but we cannot recommend them for Motion Picture work.

**Banners for front of Tents** such as used for circus side shows but adapted for Motion Picture shows will be painted to order showing any scene desired, providing copy is furnished; made of regulation banner material with webbing on the edges, leathers and rings on the corners for ropes, painted in oil in any shape desired. **Banners 8x10 or smaller.....\$1.00**

**Banners** larger than 8x10, per square foot.....\$0.15

**Terms:** Full cash payment is required with orders for tents. We cannot ship them C. O. D. About a week will be required to make tents.

**IMPORTANT—RE PRICES:** As tents are sold on a very close margin and the cost is subject to change through fluctuations in the prices of labor and material the selling price also varies from time to time. We advise those considering the purchase of a tent to state what size and style they are interested in and write for latest quotation.

We solicit inquiries from any who are interested, and shall be pleased to furnish any information regarding tents, outfits, etc., that may be desired.

CHICAGO PROJECTING CO.

We Can Furnish  
Anything Made in

... Talking Machines ...  
and Records

Either Disc or Cylinder

We Have Listed in this Catalogue  
• Only a Few of our Specialties •

If you do not find listed what you want WRITE US

Stating as nearly as possible what you desire and we  
will send you

=====  
Our Special Catalogue  
-- of --  
Talking Machines and Records

225 DEARBORN ST., CHICAGO, ILL.

## ...The Talking Machine... FOR PUBLIC ENTERTAINMENT.

There is no question but that the up to date Talking Machine has permanent place in the field of Public Entertainment and recent improvements have still further enhanced its value by making it possible to reproduce perfectly the productions of the world's most famous vocalists, to say nothing of its wonderful rendition of Band, Orchestra and Talking selections, which never fail to please the most critical audience.

The talking machine has recently entertained Kings, Queens and Emperors, besides the world's most exclusive Society, hence, there is no reason why it should not become a part of every entertainment outfit. Its usefulness is not alone in the general production of Vocal, Band, Orchestra and Talking selections but it is admirably adapted to the production of Illustrated Songs with Stereopticon Views, a feature that never fails to charm the audience.

While we recommend the talking machine outfit as an auxiliary or addition to our Stereopticon and Motion Picture Outfits, it is possible to do a profitable business with the talking machine outfit alone. Then too, where an outfit is desired principally for home amusement it may very quickly return its cost by giving one or more public entertainments, after which an endless amount of pleasure may be derived from it without cost.

The selection of a Talking Machine for Public Entertainment work is, however, a question of the most vital importance, as nothing but the very best and latest improved machine and records will produce satisfactory results before a large audience and sustain the pride of the exhibitor, without which he is liable to soon become disengaged and give up a golden opportunity.

For Public Entertainment we recommend and urge the use of the Improved Disc Machine and the Improved 10 Inch Disc Records. The productions are very loud, clear, distinct and natural, and can be distinctly heard in the most remote parts of large halls, churches and theaters. The flat Disc Records are not only far superior to the wax cylinder records in quality and quantity of tone, but they may be carried in very small space—without fear of breakage, and a feature of even greater importance to the exhibitor is that one Disc Record will outwear three wax records.

Talking Machines and Records are being improved from month to month, in fact the changes and improvements are so numerous that its development is a constant evolution, with nothing short of phenomenal results in quality and volume of tone. Jean De Riszke, one of the world's most famous singers says: "It reproduces the human voice to perfection." In fact its productions have often been taken for that of the living performer.

In consideration of the numerous and important improvements, it is of the utmost importance that you place your order where the sales are large, hence the stock always new, fresh and up-to-date.

We make a specialty of Talking Machines for Public Entertainment purposes and handle nothing but the latest improved and very best goods. Our Machines and Records are manufactured especially for us by the largest and best equipped factory in the world and every detail of their construction has been given the most careful attention, thus making them especially adapted to this class of work.

Our line is very complete and includes a number of novel specialties.

If you want the best in this line, as in any other line, you must go to those who make a specialty of the business.

WE FULLY GUARANTEE all machines sold by us and will cheerfully refund money if not found as represented.

CHICAGO PROJECTING CO.

## The Disc Record Talking Machine

Is the now acknowledged leader for both public and home amusement. Our line embraces a considerable range in price, and while each one is **Guaranteed to give entire satisfaction**, the higher priced machines possess the added advantage of more elaborate cases, larger springs, run more records, larger horns, etc., and, especially for public amusement, where it can be spared, the additional money for the higher priced machine is well spent.



### SPECIFICATIONS

Noiseless Spring Motor.

Oak Cabinet.

Improved Repro-  
ducer.

Horn of Good Size.

100 Needles.

Detachable Arm.

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### ...PRICE...

Complete as above..... \$25.00

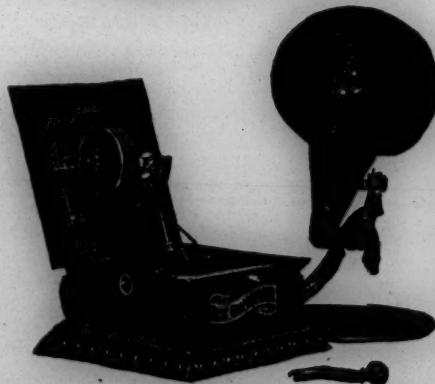
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Carrying Case, wood, cov-  
ered with imitation leather,  
nickel trimmed, has extra  
compartment for six re-  
cords, either 7- or 10-inch,  
carries machine complete,  
except horn. Price...\$3.00

225 DEARBORN ST., CHICAGO, ILL.

## Type AJ Graphophone.

Uses any Size  
Flat Disc Record.



AJ Graphophone, with cabinet top raised.

PRICE, complete as above, \$22.50

CARRYING CASE, wood, covered with imitation leather, nickel trimmed, has extra compartment for six records, either 7- or 10-inch, carries machine complete, except horn. Price.....\$3.00

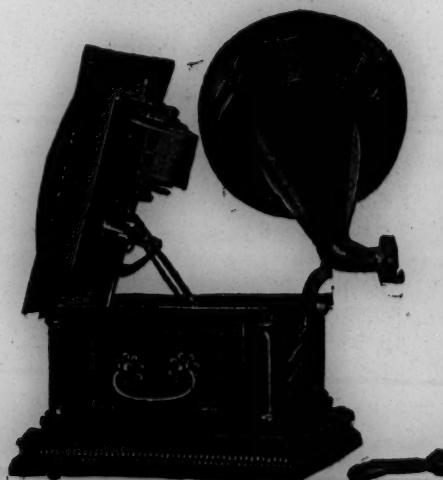
### SPECIFICATIONS

Spring Motor,  
Handsome Oak Cabinet  
Improved Reproducer.  
16-inch Horn, black, with  
polished brass bell.  
Ornamental, Detach-  
able, Horn Supporting  
Arms.  
100 Needles.  
Two-part Needle Box.

CHICAGO PROJECTING CO.

## Type AH Graphophone.

USES ANY SIZE  
FLAT DISC RECORD.



### Specifications.

Spring Motor.

Very elaborate oak Cabinet, piano finish. Improved Reproducer.

22-inch Horn, black with polished brass bell.

Ornamental, detachable, Horn Supporting Arms.

100 Needles. Two-part Needle Box.

### PRICE

Complete as above,  
**\$30.00**

Carrying Case, wood, covered with imitation leather, nickel trimmed, has extra compartment for six records, either 7 or 10-inch. carries machine complete except horn. Price ..... \$3.50

225 DEARBORN ST., CHICAGO, ILL.



## Improved Victor IV Talking Machine

Rigid Tapering arm; the latest scientific method  
of reproducing sound.

CABINET—Elaborate quartered-oak with hinge top.

MOTOR—*Triple tandem spring*; plays several records  
with one winding; and can be wound while playing.

TURN-TABLE—10-inch; can be used for all size records.

SOUND-BOX—Concert, (Exhibition if preferred).

HORN—Including tapering arm, 30 inches long.

NEEDLES—200 with two-part box for new and worn needles

—PRICE, \$50.00—

## Improved Victor III Talking Machine

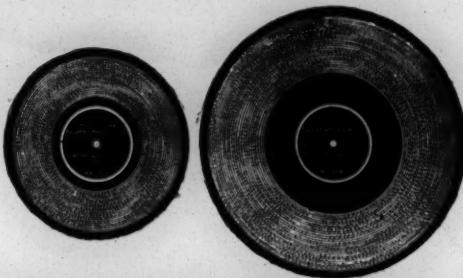
Same as the Victor IV, except that it has plainer case, double tandem spring and 27-inch horn.

—PRICE, \$40.00

CARRYING CASE, wood, covered with imitation leather, and nickel trimmed, carries machine complete except horn. Price \$4.00

CHICAGO PROJECTING CO.

## New Process Improved Disc Records.



So much has been said and so many claims made as to the superiority and quality of various forms and types of records that every known adjective of praise has been used over and over again, but,

We want you to know that the development of recent discoveries in the laboratories of the factory has placed our Improved New Process Disc Records far in advance of all other sound records, and that we are selling the FINEST DISC RECORDS ever produced, records that are in a class by themselves.

A trial will convince you that for volume, musical quality and absence of annoying scratch, these records are not approached; and we are constantly adding new selections to our catalogue.

Another most important feature in which our disc records excel all others, is DURABILITY.

Send for one of our Improved Disc Records, compare it with any other style of record, and if you are not convinced of the great superiority of these records, return them to us and get your money back.

All selections listed herein are furnished in BOTH 7-INCH and 10-INCH RECORDS except when otherwise specified. The 10-inch Record is much longer, and has greater volume and roundness of tone.

7-INCH DISC RECORDS, Price Each .....	35c
10-INCH DISC RECORDS, Price Each .....	.60c

Disc Records will be Sent by Mail at Purchaser's Risk for 15 Cents in Addition to the Price of each Record.

### .....HOW TO ORDER.....

Always specify whether 7-inch or 10-inch records are desired.

Designate the selections by their numbers only.

State whether you wish us to ship by express or freight. If this is not done we use our judgment as to method of shipping.

The nature of the record-making business is such that it is impossible to avoid occasionally running out of some selections. We recommend customers to make a double list, giving first and second choice, the second choice list to be used for substituting for any of the preferred selections of which we are out.

Unless directly instructed not to do so, we will substitute other records of our own choice for any which may be out of stock, to the extent necessary to send the full quantity of records ordered.

14-Inch Records, each .....	\$2.00
Just on the Market. Not LOUDER than the 10-inch, but LONGER.	

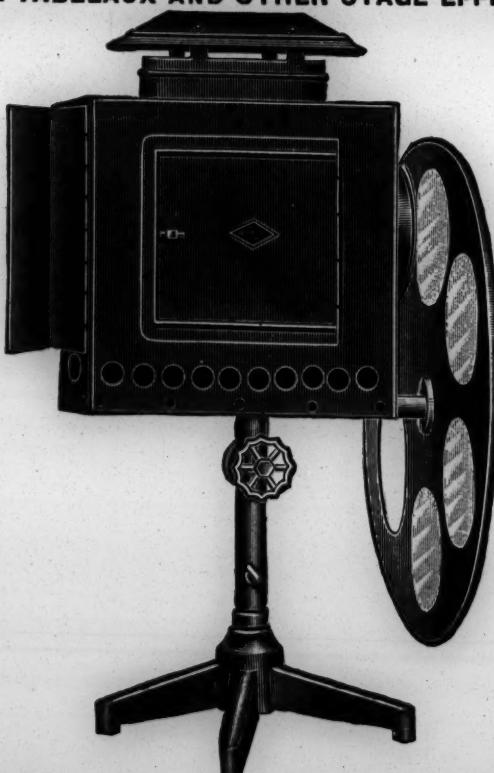
### IF INTERESTED, SEND FOR LIST.

We can furnish anything in the Talking Machine line. If you don't find what you want listed in this catalogue, write us about it. Our Records can be used on ANY MAKE of Disc Talking Machine.

225 DEARBORN ST., CHICAGO, ILL.

## **Electrical Lens Box, Spot Light or Chaser**

**FOR TABLEAUX AND OTHER STAGE EFFECTS**



To project a powerful beam of light, of small or large diameter, either white or colored for tableaux, lode work or stage effects, furnished with socket swivel so that light can be easily and quickly thrown in any direction, and held there by means of clamp screw. The metal color disc is made in sections so that it is very convenient to replace the colored gelatine mediums. The size of the projected beam of light is regulated by drawing the lamp back and forth on the supporting rods. A tripod stand sufficiently heavy for rigidity takes the place of the heavy, cumbersome floor stand.

**PRICE.** with hand feed lamp, color disc and No. 1 rheostat..... \$25.00  
Wire, for making connections to source of supply is not included in above.

### **COLORED GELATINE**

<b>PRICE.</b> per sheet, 17x20 inches.....	\$ .20
" per dozen, 17x20 inches, assorted colors, net.....	1.80
" per sheet, 8x10 inches.....	.08
" per dozen, 8x10 inches, assorted colors, net.....	.75

We do not sell other sizes.

## CHICAGO PROJECTING CO.

### Light for Motion Pictures

There are two kinds of light that may be considered for practical motion picture work, viz: electric light and calcium light.

The electric arc light is preferable owing to its strength, convenience and cheapness. If electric connections cannot be had, the only other alternative is calcium light. Calcium light is obtained by burning a combination of oxygen and hydrogen gases against a cylinder of prepared unslacked lime. The gases for calcium light may be had compressed in tanks from calcium light companies located in the principal cities throughout the United States. The tanks hold fifty cubic feet, the cost of which is usually \$6.50, besides freight charges, and the average consumption is from six to nine cubic feet per hour.

The other, and **usually more convenient means** of obtaining calcium light, is by using the Model B Enterprise Portable Calcium Gas Making Outfit, which produces calcium gas at a cost of about \$1.00 per hour. Particulars regarding the Portable Calcium Gas Making Outfit will be found listed in the catalog or will be furnished on application.

### Electric Arc Light

**Limited instructions necessary** to the selection and use of the electric lamp, rheostats, carbons, switch, fuse block, fuses and wire or cable.

The principles of the electric arc lamp, though seemingly complex, are comparatively simple, so far as the requirements of the optical projectionist are concerned, and the following instructions, if carefully studied, should enable the prospective user to make an intelligent selection and use of what is required for his particular purpose.

In electric lighting the following terms are used, viz: volts, indicating pressure; amperes, indicating quantity; and ohms, indicating resistance.

The meaning of the above terms may be well explained by the following simple example: Suppose we have a pipe supplying water, and that the pressure with which the water is forced through the pipe is one pound per square inch, the hole in the pipe one inch in diameter, and the length of the pipe one hundred feet. A certain quantity of water will flow through the pipe.

Now, instead of a pipe supplying water, we have a wire supplying electric current, and our electro motive force is one volt, the size of our wire is No. 10, and is one hundred feet long. A certain quantity of the electric current will flow, which we will call one ampere.

Now, again referring to the water pipe, suppose we use two pipes of the same diameter and the same length, and, instead of one stream, we have two streams under the same pressure, consequently twice as much water must flow. In the same way, the more pipes added, or the larger the pipe, the greater the amount of water that will pass. From this it will be understood that a change in the size of the pipe or increasing the number of pipes changes to a corresponding degree the volume of the water that will flow.

Again referring to the use of electricity, instead of water, we have one volt pressure, and instead of using one wire, we use two wires, one hundred feet in length, of the same size, and instead of one current, we have two currents of one volt pressure, from which it will be seen we have twice as much current as would flow through the one wire. The greater the number of wires, or the larger the wire, the greater the amount of current or quantity of electricity that will be carried.

Now, if in the case of the water pipe with the one inch hole and one pound pressure, we reduce its length to fifty feet, the pipe offers only half the resistance to the flow of the water, thus giving us twice the

## 225 DEARBORN ST., CHICAGO, ILL.

amount of water flowing. From this it will be understood that a decrease in the length of the pipe increases the flow of water, and an increase in the length decreases the rate of the flow of water.

Again making the comparison, if we have an electro-motive force of one volt flowing through No. 10 wire, we reduce the length of the wire to fifty feet, we have twice as much current as when using the wire of one hundred feet, owing to the decrease in the resistance to the current, thus giving us two amperes of current. From this, it will be observed that by decreasing the length of the wire, we increase the rate of the flow of current, and by increasing it, we decrease the rate of flow of the current.

For electric lighting purposes two types of current are in general use, viz: the direct and the alternating. The direct is one in which the current of electricity flows constantly in one direction. The alternating current is one in which the direction of the electric current is reversed with great frequency, running alternately in first one and then the other direction.

Electricity is computed by what is known as Ohm's law, which is as follows: A pressure of one volt will carry a current of one ampere through one ohm of resistance. According to Ohm's law, the three units of electricity are dependent upon each other; that is, the current increases when the voltage increases, and decreases when the resistance increases.

Computations of electricity are made after the formula: "Current equals electro-motive force divided by resistance." Thus, if any two factors are known, the other may be readily ascertained.

A certain amount of resistance is required when operating an electric arc lamp, in order to reduce both the force (pressure) and the volume of the current, and it is the office of the rheostat to supply the needed resistance.

The watt is another essential unit in electric measurement, but is of little importance to the optical projectionist, except as referred to in the bills from the electric light companies. It is the measure of strength by horse power of a current of electricity and represents the energy that a current is capable of developing, whether in power, heat or light. For example, one ampere flowing at a pressure of one volt is equal to one watt, and 746 watts are equal to one horse power.

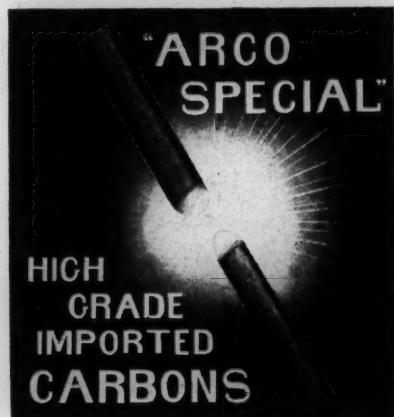
Electrically speaking, all substances are divided into two classes—they are either conductors or non-conductors, the latter called insulators. Both conductors and insulators are of varying value, so far as their respective properties are concerned.. Pure annealed silver is considered the best conductor, with copper, gold, platinum, iron, tin, lead and bismuth decreasing in conducting properties in the order named, bismuth being almost a non-conductor.

The best known non-conductors or insulators are dry air, rubber, paraffine, slate, glass, porcelain, mica, fibre, wood and shellac, named in the order of their value as non-conductors. All of the above are more or less affected by moisture, losing their insulating qualities when wet. To conduct a current of electricity with the least possible amount of waste and the least resistance, it is necessary to have the best practicable conductor, which from a commercial standpoint is copper, and it should be separated from contact with metal or other conductors by some good insulator. The insulators most generally in use are slate, glass, porcelain, mica and fibre.

**The Electric Arc Light** is the result of the electric current jumping, so to speak, from one conductor to another, in order to complete the circuit. The light is produced by the excessive friction or resistance of the air to the passage of the electric current. For example, if you bring together two wires, the ends of which are connected with a primary battery, such as is used with an electric door bell or telephone outfit, and then separate them, the result will be a tiny electric spark.

## CHICAGO PROJECTING CO.

If you bring together two wires connected with electric light circuit of 110 volts, and then separate them, the result will be a blinding flash, and the melting of the two wires at the point of contact. The reason for the difference in intensity between the two sparks is due to the greater intensity of the electric light circuit over that of the electric door bell circuit. The conditions that produce the electric arc light are the same as those which produce the spark in the door bell circuit and the flash in the electric light circuit, only that two carbon pencils are substituted at the points of contact, which, instead of melting, are slowly consumed, with the result that they produce a light of the most intense brilliancy.



For the production and use of electric arc light for optical projection work, the following accessories, for each lantern or motion picture machine, will be required:

1st—Hand-feed Arc Lamp, which consists of a frame and mechanism necessary for the support and adjustment of the carbons.

2nd—One or more Rheostats, the office of which is the reduction of the electric current to make it suitable for the requirements. The rheostat consists of a considerable quantity of wire of high resistance, and the necessary adjustments for controlling it.

3rd—Carbons of a size that is suitable to the kind of current that is to be used (direct or alternating) and the quantity of current that is to be consumed.

4th—A Knife Switch, for convenience in connecting or breaking the circuit, for the safety of the operator when making connections, changing carbons, etc.

5th—A Fuse Block, for the purpose of protecting the wiring, etc., in case of accidental short circuit.

6th—Fuse Wires or plugs, of a strength depending upon the amount of current to be consumed, the number of lamps in operation, etc.

7th—Insulated Wire or cable for connecting the lantern or motion picture machine with the main supply wires of the building. The size of the wire or cable will depend upon the quantity of current to be consumed.

The rules of the "National Board of Fire Underwriters" require the following;

For 15 amperes a No. 12 wire. For 20 amperes a No. 10 wire and for 50 amperes a No. 6 wire is required.

The electric lamp in most common use for motion picture work is known as the Vertical **Hand-feed Lamp**. Some operators prefer the right angle lamp, which possesses some advantage in the matter of better illumination, but is not quite so easy to keep in adjustment as the vertical type.

**The automatic lamp** is now very seldom used for optical projection work owing to the great cost and the difficulty in keeping it in focus.

## 225 DEARBORN ST., CHICAGO, ILL.

The selection of rheostats for resistance will depend upon the voltage of the electric line on which the electric arc lamp is to be used, whether direct or alternating, and the amount of amperage or current that is to be consumed.

The direct current is best suited to optical projection purposes, and usually has a pressure for lighting purposes of 110 volts. It is sometimes, however, used with 220 and 500 volts pressure, usually where the principal object is for power purposes, and its use for electric lighting is only of secondary consideration. The 110 volt circuit is pleasant and safe to handle, but care should be exercised in handling 220 and especially the 500 volt current. The 500 volt circuit is used usually for street railway power purposes, but is sometimes also used for illuminating purposes.

The alternating current is not so satisfactory for optical projection work, owing to the tendency of the arc to travel around the carbons on account of the alternation of the current. This objection can be overcome to a large degree by using a greater amount of current or amperage. The more frequent the alternations, however, the less difficulty will be experienced in this regard.

Alternating current usually has a pressure of 52 or 104 volts and sometimes in the higher multiples or in other voltages slightly different from the above.

The first thing to know is the voltage of the line to which connections may be made, and whether direct or alternating current, and this information should be obtained from the local electric light company or a local electrician.

In case the outfit is not to be used in a permanent location, such as a Motion Picture Theatre, public hall or church, and is to be used by a traveling exhibitor, it will then be necessary for him to equip himself with rheostats of such capacity and in such number that he will be able to meet any ordinary conditions with which he may come in contact.

For direct current fifteen amperes of current is generally considered sufficient. For alternating current greater amperage should be used to get satisfactory results, and this may be had only by using rheostats wired in multiple or a single rheostat wound with heavy wire, to increase the carrying capacity, as illustrated in the example of the two pipes carrying the water, or the two wires carrying the electric current. It will be understood that when using two rheostats in multiple, each rheostat carries one-half the current, but when wired in series, all of the current passes through both of the rheostats.

Similar results may be obtained with the same combinations of our other rheostats, viz:

The non-adjustable rheostats appeal to many operators in that they are exceedingly simple, making it almost impossible, with reasonable care, to get out of order.

The Excelsior No. 1 and the Roe Adjustable, the adjustable rheostats having the advantage of better adapting themselves to variations in voltage, amperage, etc.

In computing resistance, it will be well to remember that the number of volts consumed in making the arc of the lamp is usually about fifty, and the rheostat must have sufficient capacity to take care of the balance. For example, on the 110 volt circuit, the arc consumes fifty volts of the electric current, and the rheostat takes care of the balance of sixty volts. For the 220 volt circuit the rheostat must take care of about 170 volts.

The size and kind of carbons to be used depends upon whether the current is direct or alternating, and the amount of amperage to be used. For optical projection work carbons of special quality are required, viz: Those that are of the highest grade, are of uniform composition and are free from hard and soft spots. The ordinary carbons used for street and store illumination are not satisfactory for

## CHICAGO PROJECTING CO.

this purpose as they will not give an even and steady illumination. For this work two varieties of carbons are used, viz: what are known as solid and soft cored. The solid carbons are made of the same composition throughout, while the soft cored carbons have a core of very soft carbon in the center, which is used for the purpose of making them burn more readily in the center than on the outside, thus holding what is called a "crater" in the center of the carbon.

**The Knife Switch** should be of ample capacity to fill all requirements whether for the traveling exhibitor or one that is permanently located, and generally speaking, we would advise the combination of the knife switch and fuse block when using a single lantern, or motion picture machine alone.

When using a double lantern, two knife switches are required, and it will be found more convenient to have the switches and the fuse block separate. The type of fuse block that uses enclosed fuses is most desirable, because in most cities and towns the Board of Underwriters will no longer permit the use of the open link fuses.

Our No. 7 Electric Knife Switch and Fuse Block is recommended as thoroughly efficient and one that will fill all requirements up to 250 volts and fifty amperes.

## Carbons

For direct current, when using fifteen amperes, it is customary to use a  $\frac{1}{8}$  soft cored carbon above and  $\frac{1}{8}$  to  $\frac{1}{2}$  solid carbons below, usually the latter. The reason for using the larger carbon above is that the direction of the current is from the lower to the upper carbon, by reason of which the upper carbon is called the positive carbon. The positive carbon burns faster than the negative, and as both carbons, in most of the hand-feed lamps, are fed with equal speed, it is necessary to compensate for the greater consumption by having greater diameter, which retains the arc in line with the optical center of the lenses.

For use on alternating currents, it is customary to use two soft cored carbons of the same size, or the upper one only slightly larger. In the alternating current neither carbon is positive or negative, but the upper one burns slightly faster on account of the upward course of the flame. A good combination for alternating work is  $\frac{1}{8}$  soft cored below and  $\frac{1}{2}$  soft cored above, when using fifteen amperes of current, and  $\frac{1}{8}$  soft cored below and  $\frac{1}{2}$  soft cored above when using 25 amperes or more.

**The fuse block** is necessary as a protection to the main line, and to the lights in the house, in case of accident. Fuse wire is made of soft composition metal of a low melting point. If from carelessness or through oversight the two wires that supply the current should come in contact with each other, either directly or indirectly, through the lamp, lamp house, or other parts of the apparatus, it passes more current through the fuse than it was made to carry, and instead of putting the line out of commission, it simply burns out one or both of the wires enclosed in the fuse plugs of the fuse block, and by replacing the fuse plugs, which can be done in a few moments, the line is again ready for use. While the fuses should be of ample carrying capacity to furnish sufficient current for the requirements, they should not be stronger than the fuses that connect the house wires with the supply wires, otherwise, in case of accident, the entire lighting system might be put out of commission. Usually 25 to 35 amperes capacity is sufficient.

Fuse blocks are quoted without fuses, hence it is necessary to order them of sufficient capacity to serve the requirements. Two fuses are required for the fuse block and a few additional should be ordered to provide for accident.

**Flexible Wire or Cable** of sufficient capacity and sufficient length should be provided to make connections between the instrument and the supply wires of the main building. For a permanently located outfit

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such as in a Motion Picture Theatre, Church or Hall, it is customary to have the local electrician run the wires when practicable to a point very near to the instrument, hence but a comparatively short length of insulated wire is necessary to make connections to the instrument. Some prefer the asbestos covered cable, others the regular jute stage cable. Where not over fifteen amperes of current are used, the flexible insulated electric light wire will generally fill the requirements, except in cities where prohibited by the regulations of the Board of Underwriters or the City Council.

The traveling exhibitor should be equipped with a length of anywhere from 30 to 100 feet of flexible wire or stage cable, as he will often find that the source of supply is some distance from the most convenient point where the instrument could be located. The capacity of the stage cable will be found in the regular price list.



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# How to Order

## Terms of Shipment, Etc.

### We Guarantee

WE GUARANTEE EVERY INSTRUMENT sold by us to be as represented. Should any error occur or any goods not give satisfaction from defective material or workmanship, it will be gladly corrected by us, or money will be refunded.

### Liberal Terms

We will send any one of our complete Exhibition Outfits, either the Stereopticon Lecture, or Motion Pictures, to any Express Office, C. O. D., and subject to a thorough examination, on receipt of \$5.00 with order as a guarantee of good faith. After the Outfit is examined, if it is found exactly as represented, and perfectly satisfactory, the express agent may be paid the balance and the express charges, but if not found to be as represented by us the outfit can be returned to us at our expense, and we will refund the \$5.00 deposited. Where a triple combination outfit including a talking machine is desired we require a deposit of \$6.50. Orders for single Stereopticons or Motion Picture Machines will be shipped on receipt of \$3.00 with order, and miscellaneous goods, supplies, etc. (except films or other goods not carried in stock), will be shipped upon receipt of 10 per cent of the amount of the order. Orders amounting to less than \$2.00 should be accompanied by cash in full. On special films or other goods that are not carried in stock, or shipments to distant points, we reserve the privilege of making terms of shipment different from the above.

### Errors

It would be unreasonable to expect a catalogue embracing such a large variety of goods and so many items to be compiled without the possibility of some errors being overlooked before it goes to press. Where errors do occur, we reserve the right to correct them.

### Films C. O. D.

Films will be shipped C. O. D. (Collect on Delivery,) when desired, but it must be remembered, that with few exceptions films are made to order, hence, we require a deposit of at least 20 per cent of the amount of the order as a guarantee of good faith.

We cannot under any circumstances send goods C. O. D. to foreign countries.

The prices listed in this catalogue are net.

### To Your Advantage

WHEN CASH IN FULL ACCOMPANIES THE ORDER the customer saves not only the express company's charges for collection and return of money, but also the trouble of unpacking and examining the machine and outfit at the express office is avoided. The outfit can be thoroughly examined at your own home, and if everything is not found to be exactly as represented and a big money making opportunity, it can be returned to us, and your money will be cheerfully refunded.

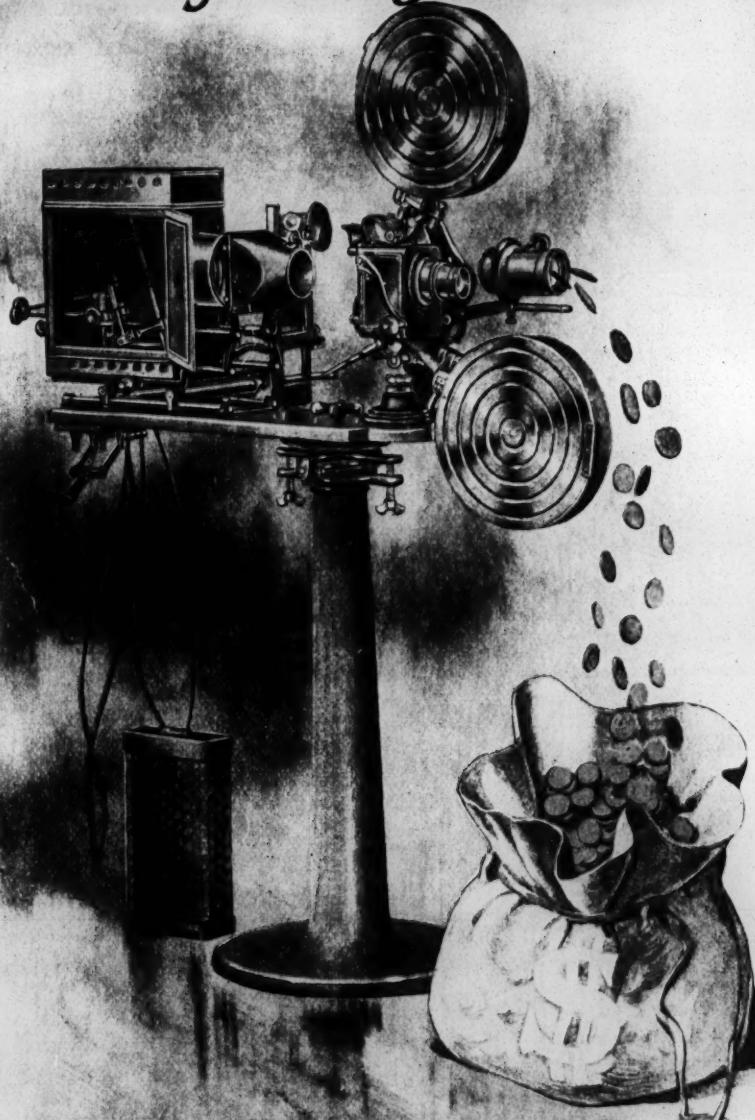
### We are Reliable

As to our reliability, we refer to any bank, any of the express companies, or any old, reliable business house in this city. We are well known in the mail order business, and if you have not already had dealings with us, and there is any doubt in your mind as to our reliability, it will be an easy matter for you to learn of our reputation for fair and honorable dealing. If you would like to know more about us and you have any friends living in or near this city, we would be very glad to have them call on us and report to you the result of their visit.

### How to Send Money

Remit by postoffice money order, express money order, bank draft or cash in registered letter. If you send your individual check on a local bank your order will be delayed until we have made collection (except that you have it certified) and the expense of collecting will be deducted. Postage stamps will be accepted to any amount as an accommodation to our customers. We recommend sending an express or postoffice money order, or bank draft, as they are inexpensive, less trouble and perfectly safe. If they should get lost or be miscarried, your loss would be made good. Do not send money or stamps to the amount of more than \$1.00 without registering your letter.

# *The Money Making Machine*



*Chicago Projecting Co.*

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